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Social, Economic, and Homemaking Factors in Farm Living

Agricultural Experiment Station of the University of Missouri and the United States Department of Agriculture Cooperating

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THE FARM FAMILY

by

RANDALL CONRAD HILL, B. S., M. S.

Submitted in Partial Fulfilment of the Requirements for the Degree of Doctor of Philosophy.

in the

GRADUATE SCHOOL

of the

UNIVERSITY OF MISSOURI

1929

VITA

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His work in sociology was done under Professors Morgan, Ellwood, Jensen, Emig, De Graff and Kuhlman; and his work in economics was done under Professors Brown and Johnson.

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(Publication Authorized June 24, 1930)

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ABSTRACT.

This is a study of seventy farm families in a central Missouri community, conducted jointly by the departments of Rural Sociology, Home Economics, and Agricultural Economics of the Missouri College of Agriculture. The data gathered included social participation, farm business, and homemaking with a view to ascertaining possible correlations between these three factors of farm family living. Of the families studied thirty-four were owners, nineteen owner-renters, and seventeen were renters.

A marked direct relation was found between the years of residence in the community and social contacts; acres operated and capitalization; capitalization and money available for saving and living; size of family and family recreation; and between money available for saving and living, and the four factors of family recreation, papers and magazines read, quality of diet, and education. A marked inverse relation was found between the age of the operator and social contacts; age of the operator and number of acres operated; and between capitalization and labor income.

There was a slight direct relation between size of family and social contacts; capitalization and family recreation; age of operator and quality of diet; labor income and quality of diet, and between money available and social contacts.

No relation was found between size of family and money available; age of operator and money available; age of operator and labor income; size of income and labor income; money available and clothing expenditure; food expenditure and clothing expenditure; size of family and quality of diet; social contacts and the factors of clothing expenditure, quality of diet, education, and papers and magazines read.

Social, Economic, and Homemaking Factors in Farm Living

Randall C. Hill, E. L. Morgan, Mabel V. Campbell, and O. R. Johnson*

PRELIMINARY STATEMENT

Purpose of the Study.—The purpose of the study here reported was threefold: (1) To ascertain the facts concerning several important phases of farm family life; (2) To endeavor to synthesize a number of the measurable factors and to discover what relationships might exist among them and; (3) To demonstrate a method for the composite study of farm family life.

The Area Studied.—The community selected for the study is located in Boone County, from twelve to sixteen miles south of Columbia. It has an area of approximately fifty-two square miles, comprising a village with a population of 314† and the tributary farm area with 983† making a total population for the community of 1297†. A hard surface state highway bisects the community and provides good yearround facilities for outside contacts.

The service agencies of the village include two general retail stores, post office, bank, newspaper, garage, blacksmith shop, two churches, a consolidated high school and a community hall.

The chief economic interest of the community lies in a diversified agriculture with emphasis on live stock production.

Most of the population is descended from a pioneer stock and represents a common culture rather homogeneous in nationality, religion, and ideals.

In selecting this community for the study the following conditions were the determining factors.

1. The community was thought to be typical for central Missouri.
2. Three previous studies‡ had been made and it was assumed that eventually sufficient data will have been gathered to show trends in certain phases of the affairs of the community, and also to make possible the comparison of various methods of study.

*The data for this study were gathered in 1928 by Randall C. Hill and Leona T. Hill, his wife, during the time Mr. Hill was an Agricultural Research Fellow in the department or rural sociology of the College of Agriculture of the University of Missouri, and were originally presented by him as a thesis in partial fulfillment of the requirements for the degree of Doctor of Philosophy. The joint authors, E. L. Morgan, Mabel V. Campbell, and O. R. Johnson, under whose direction the original work was done, rewrote the manuscript and prepared it for publication.

†From a census taken in 1928.

‡Burt, Henry J., Contacts in a Rural Community. Research Bulletin No. 125, Missouri Agricultural College Experiment Station.

Fahrner, Leslie. The Geography of the Ashland Region. Master's thesis, University of Missouri, 1928.

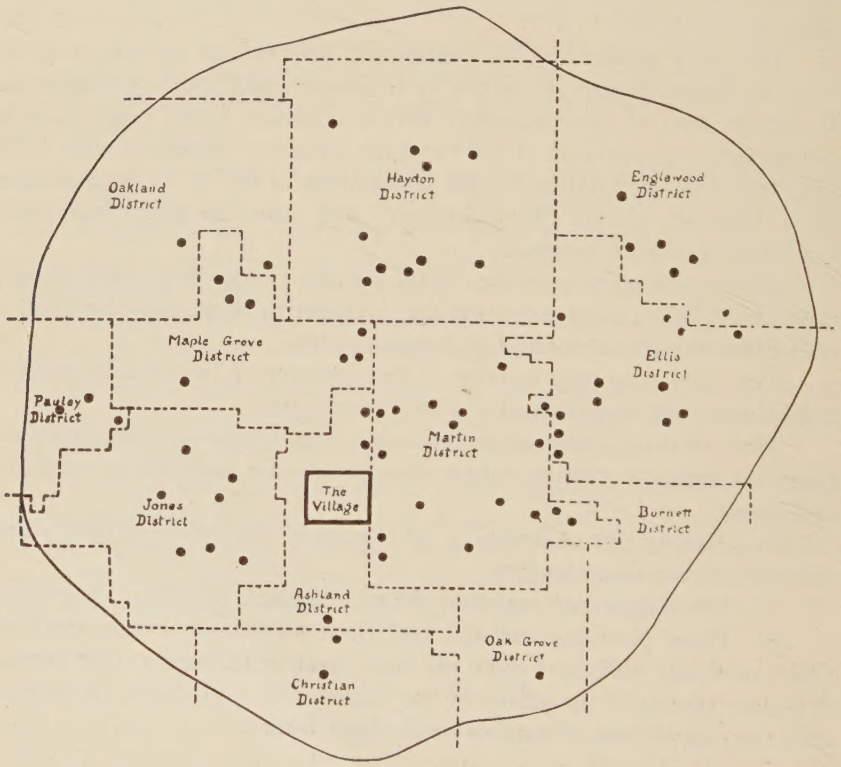
Morgan, E. L. and Howells, Owen, Rural Population Groups, Missouri Agricultural College Experiment Station, Research Bulletin 74.

3. The farms of the community varied in type, size, value and in condition of improvement and upkeep, representing a diversified agriculture and were well distributed as to tenure among owner, owner-renter, and renter operators.

4. A small village is located at almost the geographical center of the area which serves as a trade and social center.

5. The community was readily accessible from Columbia on a hard surfaced road.

6. Experiences accumulated in previous studies made in the area led to the assumption that full local cooperation in the pursuance of this research project could be secured.



Map of the Community Showing the Location of the Farms Studied.

Scope of the Study.—The study consisted in an analysis of the affairs of seventy farm families*, for the period of one year beginning

*The term "family" as used here refers to a group composed of a farm operator, a homemaker and any blood relatives who resided in the farm home during the greater portion of the year considered.

March 1, 1927. The group comprised thirty-four owners, nineteen owner-renters, and seventeen renters, distributed through the community as indicated by the map on page 6. The families varied in size from two to eight persons, there being 32.9% composed of two persons, 40% of four and 27.1% composed of 5 to 8 persons.

The factors of family living considered were social participation, leisure time, the farm business, funds available for saving and living, education and reading matter, diet, food and clothing expenditures, length of the working day, and other related factors.

Method.—The study was pursued as a cooperative project sponsored by the departments of rural sociology, home economics, and agricultural economics in collaboration (including financial participation) with the office of Farm Population and Rural Life of the Bureau of Agricultural Economics of the United States Department of Agriculture.

The data were gathered by a graduate student and his wife, both of whom were acceptable to the three departments cooperating, during the summer and fall of 1928. The survey method was followed through the use of schedules, which comprise the appendix to this bulletin. The data concerning organized social participation, the farm business, and the use of agencies for improving farming were secured from the farm operator by the man collaborator while data regarding diet, education, unorganized social participation, and other factors concerned with the farm home were secured from the homemaker by the woman collaborator.

For purposes of tabulation and comparison the families were distributed into three groups, designated as the highest, medium, and lowest range. Each range represented approximately one-third of the families*. This distribution of the families into three groups, each composed of one-third of the families into steps of equal numerical intervals was used for the following reasons:

1. To feature the *highest*, the *medium* and the *lowest* third of the families with regard to the various factors studied.*

2. To determine to what extent the families represented by a given third for one factor of family living were represented in the same third for other factors, and vice versa.

3. To provide enough cases in each interval for interpretation. The small number of cases, (although an adequate sample of the community), and the large number of factors studied, made the distribution of families on the basis of equal numerical intervals inadvisable.

*The approximate thirds usually represent a 23-23-24 family distribution due to the fact that 70 families cannot be equally divided into thirds. A slightly different distribution was occasionally necessary when several families, at the place where the division into approximate thirds should have been made, had the same numerical rating. The distribution of families as to quality of diet could not be made on a basis of thirds. Quality of diet was judged by standards given in Section V and distributed accordingly.

I. SOCIAL PARTICIPATION

Types of Participation.—Two phases of social participation were considered in the study. The first, which includes all social participation of an individual with other individuals who are not members of his immediate family, is called the "social contact", and is based on Hawthorn's definition of social contact, which reads as follows:. . . . . "the exposure or contact of a person, for approximately one hour, to an event or situation which has definite socializing value";* and on Burt's modification of this definition, which is, "a social contact is the exposure of one person to group influence for one hour".** The modification of Hawthorn's definition of a social contact used by Burt places the measurement of social contacts entirely on a quantitative basis. Because of the lack of an adequate method of determining what contacts have socializing value, and of measuring the quality of contacts, the modified definition of a social contact, as used by Burt, seems better suited to the purposes of this study than the original definition by Hawthorn.

The second phase of social participation considered includes certain types of social interaction among the members of a given family group, in which event no person except members of that immediate family group participated. This second phase, if placed on an hour basis, undoubtedly could be and perhaps should be considered social contacts. A liberal interpretation of either definition of social contact would easily permit such. However, neither Hawthorn nor Burt include this type of participation. Because of this precedent and because of the difficulty of expressing some of the family participation data on an hour basis, the latter will be classified in this study as family recreation.

Family recreation includes participation of part or all of the members of a given family, providing no persons other than family members are present, in any of the following types of activity: Playing games, such as chess, checkers, dominoes, cards of various types, croquet, horseshoe, etc.; dancing among the members of the family; entering into sports such as sleighing, fishing, hunting, boating, skating, horseback riding, playing ball, tennis, etc.; listening to the radio or to the phonograph; playing a musical instrument or singing; visiting at the table during and after meals; telling stories; making candy, popping corn, celebrating special occasions within the family group, such as birthdays, Christmas, and special holidays; and going on family picnics.

It should not be interpreted that this list of family recreational activities is complete or final. It represents a careful attempt to secure a

*Hawthorn, H. B., The Sociology of Rural Life, p. 7.
**Burt, Henry J., "Contacts In A Rural Community." Research Bulletin No. 125, Missouri Agricultural College Experiment Station.

complete survey of such activities in the rural community studied. A similar study of other communities might reveal a very different group of family recreational activities.

Participation in any of the activities listed under family recreation was considered such when entered into exclusively by members of one family. If another person or persons participated in the activity with them, it was considered, as stated in the definition, a social contact. For example, if certain members of a family played croquet it was considered family recreation, but if a neighbor played croquet with them, the approximate time of the resulting association was secured, and it was tabulated as a social contact. Also, if most of the time these neighbors were together on that occasion was spent playing croquet, it was tabulated as a social contact of "playing games", but if playing croquet was incidental to a neighborhood dinner, the social contact was classified as a "dinner". This was done to avoid duplication in the tabulation of social contacts.

Therefore, as used in this study, a social contact is the exposure of one person to group influence, other than that of his immediate family, for one hour*. Family recreation is the participation of two or more members of a family in social activity, when not in the presence of persons other than members of that family.

Collection of Social Participation Data.—The social participation data were secured by means of a personal interview with each homemaker and farm operator. In preparation for the interviews a preliminary list of social activities was made, which was later incorporated in the schedule. This list of activities was secured from two sources. First, from a list of social activity events which had occurred in this community, for a period of three months of the specific year covered by the study.† Second, by a preliminary interview of a few families.

In securing the data regarding family recreation and social contacts of an unorganized nature, each homemaker was asked to state in what activities the various members of her family participated and how often they participated. The information was given in terms of so many times, per day, week, month, year or season, depending on the activity. For family recreation these data were sufficient as the family recreation data were considered on a basis of the number of participations.

For social contacts it was also necessary to determine the duration or length of time of the participations. The duration of visiting and trading was taken from another study‡ in which individuals in the community estimated the number of times they participated in a given activity

*The presence of hired help was not taken into consideration in determining social contacts, because hired help existed in so few homes, and usually for such short periods of time.

†Burt, Henry J., "Contacts in a Rural Community," Research Bulletin No. 125, Missouri College of Agricultural Experiment Station.

‡Ibid.

and the average duration of these participations. The duration of participations in other activities was secured by asking each homemaker to estimate each for the members of her family.

The data regarding social contacts of an organized nature were secured from the farm operators in the same manner as the social contacts of an unorganized nature were secured from the homemakers. The duration of the organized social contacts (consisting largely of church and Sunday School attendance) was easily estimated by those attending.

Social Contacts.—The number of social contacts accredited to a given family represents the average social contacts for each member of that family. It was secured by adding the total social contacts of every member of a given family and dividing the resulting total by the number of persons in the family. This per person average for a family is similar to the family participation index used by Hypes,* especially as he applies it to total participation and to church attendance. Hypes, however, used the number of persons eligible to participate in a given activity instead of the total number of persons in the family as the divisor in securing the family participation index for individual activities. The latter was considered unnecessary in the present study because less than one per cent of the social contacts were furnished by activities in which eligibility to participate was limited.

Social contacts were divided into two groups designated as organized and unorganized. By social contacts of an organized nature is meant participation† hours in activities which have a specific or definite type of organization, such as lodges, clubs, and churches. The social contacts classified as unorganized represented hours of participation in any activity which had no definite form or organization, such as dinners with relatives or friends, visiting with neighbors, attending celebrations, and going fishing or playing games with neighbor families.

The owner families were almost equally divided among the three participation groups. There were certain variations in the distribution of owner-renters and renters, but there was no consistency in the variations and no trend suggested.

The data given in Table 1 are a summary of the contribution of the various activities that provided social contacts for the rural families, and show what proportion of the total social contacts each activity provided.

The average number of social contacts per person, (family participation average) was 693, provided by 291 participations of 2.38 hours average duration. Visiting provided the largest number of social con-

*Hypes, J. L. "Social Participation in a Rural New England Town." Contributions to Education No 258, Columbia University Teachers' College Series. p. 5.

†If a person attended a function, he was considered to have participated. However, membership n an organization was not considered participation unless accompanied by attendance.

TABLE 1.—DISTRIBUTION OF NUMBER OF PARTICIPATIONS, AND OF SOCIAL CONTACTS FROM ALL SOCIAL ACTIVITIES FOR ONE YEAR

Activities providing Social Contacts	Total Families					Owners					Owners-Renters					Renters				
	Participations		Av. Hr Duration per Participation	Social Contacts		Participations		Av. Hr Duration per Participation	Social Contacts		Participations		Av. Hr Duration per Participation	Social Contacts		Participations		Av. Hr Duration per Participation	Social Contacts	
Family average* for: Total Social participation	No. 291.1	% 100.	2.38	No. 693.0	% 100.0	No. 252.2	% 100.	2.43	No. 612.8	% 100.	No. 332.6	% 100.	2.29	No 761.6	% 100.	No. 320.6	% 100.	2.43	No. 779.0	% 100.
Total Unorganized Social Participation	240.2	82.5	2.6	627.0	90.5	198.4	78.7	2.7	542.3	88.5	277.1	83.1	2.4	690.0	90.6	279.2	87.1	2.6	725.9	93.2
Visiting	45.0	15.4	3.9	175.5	25.3	44.6	17.7	3.6	160.5	26.2	45.0	13.5	3.7	166.5	21.7	48.8	15.2	4.3	209.8	26.9
Dinners	26.6	9.1	4.5	119.7	17.3	24.3	9.6	4.5	109.3	17.8	29.4	8.8	4.5	132.3	17.4	27.9	8.7	4.5	125.5	16.1
Entertainment	9.7	3.3	2.2	21.3	3.1	7.7	3.1	2.3	17.7	2.9	11.4	3.4	2.2	25.0	3.3	11.8	3.7	2.2	25.9	3.3
Celebrations	4.6	1.6	4.2	19.3	2.8	5.5	2.2	3.7	20.3	3.3	3.7	1.1	5.0	18.5	2.4	3.8	1.2	4.7	17.9	2.2
Parties-Socials	15.4	5.3	2.4	36.9	5.3	12.4	4.9	2.2	27.2	4.4	16.7	5.0	2.6	43.4	5.7	19.9	6.2	2.2	43.8	5.6
Sports	20.4	7.0	1.6	32.6	4.7	14.2	5.6	1.3	18.4	3.0	20.6	6.2	2.1	43.2	5.7	32.9	10.3	1.6	52.6	6.7
Music	23.5	8.1	1.0	23.5	3.4	12.8	5.1	1.0	12.8	2.1	33.3	10.0	1.1	36.6	4.8	28.1	8.8	1.0	28.1	3.6
Games	21.7	7.5	1.0	21.7	3.1	12.9	5.1	1.0	12.9	2.1	31.6	9.5	1.0	31.6	4.1	27.1	8.5	1.0	27.1	3.4
Household	7.6	2.6	1.0	7.6	1.1	4.6	1.8	.9	4.1	.7	11.8	3.5	1.0	11.8	1.5	9.0	2.8	1.0	9.0	1.1
Radio	2.5	0.9	2.0	5.0	.7	1.7	.7	2.0	3.4	.6	3.7	1.1	2.0	7.4	1.0	3.0	.9	2.0	6.0	.7
Trading	63.2	21.7	2.6	164.3	23.7	57.7	22.9	2.7	155.7	25.4	69.9	21.0	2.5	174.7	22.9	66.9	20.9	2.7	180.6	23.1
Total Organized Social Activities	50.9	17.5	1.3	66.2	9.5	53.8	21.3	1.30	70.5	11.5	55.5	16.7	1.2	70.5	9.3	41.4	12.9	1.2	52.4	6.7
Church	26.5	9.1	1.5	39.7	5.7	27.0	10.7	1.5	40.5	6.6	30.0	9.0	1.5	45.0	5.9	22.1	6.9	1.5	33.2	4.2
Sunday School	20.6	7.1	1.0	20.6	3.0	23.5	9.3	1.0	23.5	3.8	20.7	6.2	1.0	20.7	2.7	14.5	4.5	1.0	14.5	1.8
Other Organized Activities	3.8	1.3	1.5	5.7	.8	3.3	1.3	2.0	6.6	1.1	4.8	1.5	1.0	4.8	.6	14.8	1.5	1.0	4.8	.6

*Family average represents average for each person in family.

tacts (175.5 per person), which were approximately one-fourth of the total social contacts. Trading was second, providing 164. 3 social contacts per year, and dinners third with 119.7 such contacts. These three items provided 66 per cent, or more than three-fifths of all the social contacts. The renter families had the largest number of social contacts from visiting and trading, but the owner-renter families had more such contacts due to dinners than either of the other groups of families. Unorganized activities, such as entertainments, celebrations, sports, music, games and miscellaneous activities, and such organized activities as church and Sunday School, provided from 19 to 39 social contacts each, or from 2.8 per cent to 5.7 per cent each of the total social contacts. In entertainment and music the renter and owner-renter families participated practically the same amount, but the owners somewhat less. The owner families gave more time to Sunday School attendance and to celebrating occasions than the other groups. Sports were apparently more popular among the renter families, and the owner-renters had the highest participation records for music and for church attendance. However, church attendance among the owner families was only slightly lower than among the owner-renter group. Household activities (composed mostly of contacts incidental to popping corn and making candy), listening to the radio, and organized activities (other than church and Sunday School) made comparatively small contributions. The total for the three groups provided less than three per cent of the total social contacts for the rural families considered.

There was also considerable variation in the average number of hours duration of the participation in the different activities providing social contacts. The largest number of hours incidental to any activity was provided by dinners, an average of 4.5 hours. This was followed by celebrations with an average duration of 4.2 hours, and by visiting with 3.9 hours. Trading, entertainments, and radio averaged 2.6, 2.2, and 2 hours respectively; church and miscellaneous organized activities averaged 1.5 hours, and sports 1.6 hours. The average duration of participations in other activities providing social contacts was one hour each. There was also some variation in the duration in such activities as celebrations, miscellaneous unorganized activities, and listening to the radio, among the owner, owner-renter, and renter groups.

The greater proportion of the social contacts, 66 per cent, was provided by three sources of unorganized social activities: visiting, trading, and dinners. Each of the organized and the other unorganized activities provided from less than one per cent to 5.7 per cent of the total social contacts for the members of this group of rural families.

Family Recreation.—This refers to the social participation of all or part of the family as a group, when no person, other than mem-

bers of the immediate family, was present. Social participation of this type or under these conditions is designated in this study as "family recreation". The family participation average* for family recreation for a given family is based on the number of times the family participated in a given activity, and no consideration is given to the duration or quality of the participation.

The types of family recreational activity were numerous and varied, but for purposes of tabulation they are classified into nine groups: visiting, music, radio, games, sports, telling stories, popping corn, making candy, and miscellaneous.

Visiting, as noted in this study, was limited to visiting among the family group at meal time. Mere conversation incidental to a meal was not considered visiting, but if the family remained at the table twenty to thirty minutes, or more, after the meal, to converse with one another, it was tabulated as visiting at the table. Other visiting within the limits of the family was excluded, not because it was of less importance, but because it was very difficult for the homemaker to estimate. Music included playing any musical instrument, singing, or listening to a phonograph. Listening to the radio included anything that the family might hear through the radio,including musical programs. In tabulating family recreation for both music and listening to the radio, the participation of an individual member of the family by himself was included, but in each case the number of such individual participations was divided by the number of persons in the family, thus securing a family average.

Games included playing such games as chess, checkers, dominoes, cards of various types, croquet, etc., when two or more members of the family participated. Sports included sleighing, fishing, hunting, boating, skating, horseback riding, playing ball, tennis, etc., within the family group. Telling stories is difficult to define, but was sufficiently common in the community that it needed little or no explanation for the homemakers interviewed. It was generally understood to be the portraying of fact or fiction, heard or read elsewhere, by one person to other members of the family. Popping corn refers to the social activity and conversation among the family group incidental to popping and eating of popcorn. Likewise the family recreation due to making candy refers to the family sociability incident to it.

Miscellaneous family recreation refers to family social activity that could not be classified in the other groups. It included such things as the gathering of the family around the fire in the evening to eat apples and visit, and dancing among members of the family.

*Family average is secured by adding total participation of each member of the family and dividing by number of persons in the family.

The distribution of participation in these various forms of family recreation is given in the tables and explanation that follow.

TABLE 2.—DISTRIBUTION OF FAMILIES AS TO FAMILY RECREATION

	Total Families		Owner		Owner-Renter		Renter	
Total Families	No. 70	% 100	No. 34	% 100	No. 19	% 100	No. 17	% 100
Participation Range*								
Highest 1310-2910	24	32.9	10	29.4	7	36.9	7	41.2
Medium 516-1309	25	37.1	10	29.4	10	52.6	5	29.4
Lowest 0-515	21	30.0	14	41.2	2	10.5	5	29.4

*All figures used in family recreation ranges represent a per person average for families and are designated as family participation averages.

Average Number of Participations in Family Recreation for one year for: #	
All Families	1027.4
Families in Highest Participation Range	1717.6
Families in Medium Participation Range	943.6
Families in Lowest Participation Range	383.6

A per person average for families.

Average Number of Participations in Family Recreation for one year for:	
All Families	1027.4
Owner Families	938.0
Owner-Renter Families	1142.1
Renter Families	1081.5

The family recreation when considered as a whole, shows a wide variation in the activity of the different families represented. The families in the highest participation range participated from 1310 to 2910 times per year, the per person average for all in the families in this range being 1717.6. The average for the families in the medium range, 516 to 1309 participations, was 943.6, and the average for the families in the lowest range, zero to 515, was 383.6 participations for each person in the families represented.

The average per person participation in family recreation for all owner families was 938; for owner-renter families, 1142.1; and for renter families, 1081.5

A comparison of distribution within the three participation ranges with the participation averages for the various groups brings out two facts. First, it indicates that as far as the number of times of participation is concerned there was a great variation among individual families, and, second, family recreation played a very similar role in the home life of the renter and owner-renter families as a whole; but both

renter and owner-renter families were somewhat more active in family recreation than the owner families.

Turning from these generalized figures we may observe the family recreation participations in detail in Table 3.

TABLE 3.—DISTRIBUTION OF PARTICIPATION IN THE VARIOUS FORMS OF FAMILY RECREATION.

Average Participationin Family Recreation for:	Participation in Family Recreation								
	Visiting at Meals No.*	Radio No.	Games No.	Music No.	Telling Stories No.	Popping Corn No.	Making Candy No.	Sports No.	Miscellaneous No.
All Families	476	346	231	163	86.7	27.6	22.2	18.1	5.7
Highest Range	872.7	438.6	267.9	465.2	132.6	69.4	47.6	60.5	200.0
Medium Range	517.5	153.8	25.9	70.8	43.7	13.4	12.9	6.6	0
Lowest Range	70.9	0	0	0	0	1.0	3.3	0	0

*No. refers to average number of participations per person for families in a given range.

It is evident from the data in Table 3 that families participated to quite a large extent in several of the types of family recreation considered. Visiting at meal time represented the largest number of participations for all families (a per family average of 476 times per year), followed next in rank by listening to the radio (a per family average for all families of 346 times a year.) Playing games, and participating in or listening to music contributed 231 and 163 recreational participations respectively. The remainder of the activities furnished family averages for the group of less than 100 each. Telling stories was participated in 86.7 times per year; popping corn, 27.6; making candy, 22.8. Sports were participated in 18.1; and other activities listed as miscellaneous provided less than 6 participations per family.

There was a large variation in the number of times different families participated in any one of the recreational activies. The families in the highest range for visiting at meals participated 872.7 times during the year, those in the medium range 517.5 times, and those in the lowest range participated 70.9 times during the year. The one-third of the families that listened to a radio the most averaged 438.6 times per year, while another group averaged listening 153.8 times per year. Approximately one-third of the group did not have a radio. In each of the recreational activities there were some families that did not participate. For music, telling stories, and sports approximately one-third; for popping corn and making candy, almost a third; for games, more than half; and for miscellaneous activities more than two-thirds of the families did not

participate. Although the proportion of the families that did not participate was somewhat similar for so many activities, it should not be construed that it was the same group of families that did not participate in each of them. There were, of course, certain families that tended to have few participations of any type, but there were also a large number of families who were very active in certain types of family recreation but did not participate at all in others. The families in the highest range for radio listened 438.6 times per year, while those in the medium group listened 153.8 times per year. Those in the highest range for games participated 267.9 times, and those in the medium range participated less than one-tenth as much. But 60 per cent of the families did not participate in games. The variation between the highest and medium range for music was even greater, being 465.2 for the highest group and 70.8 for the medium group. Popping corn and making candy provided a comparatively smaller number of participations per family, but a larger proportion of the families participated. Sports were participated in 60.5 times during the year by one-third of the families and only 6.6 times by those in the medium range. Miscellaneous activities, celebrations, dancing, etc., within the family group provided a large amount of recreation for a very few families.

In general it might be said that these families appear to have had a large amount of recreation or social participation within the family group, exclusive of other persons. Visiting, radio, games, and music provided a large proportion of their family recreation, and telling stories, popping corn, making candy, entering into sports and miscellaneous sources provided a comparatively smaller part. Also, in each type of family recreation, with the exception of visiting, one-third or more of the families did not participate.

Summary.—Social participation includes social contacts and family recreation. Social contacts represent the number of hours a person was exposed to group influence other than that of his immediate family. The per person average for social contacts varied from 150 to 1500 for the year, the average for all families was 691.5 per person. The renters had the greatest number of social contacts, the owner-renters slightly less, and the owner families had the fewest contacts. Unorganized activities provided 90.5 per cent of the social contacts, and more than two-thirds of the unorganized type were provided by visiting, dinners, and trading. The 9.5 per cent of the social contacts provided by organized activities consisted largely of church and Sunday School attendance.

Family recreation represents the participation of two or more members of the family in social activity when not in the presence of other persons than members of that family. The per person average for families in such participation varied from zero to 2910 times for the year.

The average for all the families was 1027.4. One-third of the families had a per person average of 1717.6, one-third had 943.6, and one-third of the families participated an average 383.6 times during the year. The owner-renter families had the highest participation averages in family recreation, the per person average for this group of families being 1142.1. The renter families were slightly less active with 1081.5 participations, and the average participation in family recreation for owner families was 938. Since the groups had an average of 695.1 social contacts and participated 1027.4 times during the year in family recreation, it seems fair to conclude that there was a somewhat extensive sharing of ideas, experiences, and ideals among the rural people included in this study.

II. THE FARM BUSINESS

The farm business analysis on these 70 farms is made by means of the farm management survey method, using a standard form of the department of agricultural economics of the University of Missouri. The record covers the farm business year from March 1, 1927 to March 1, 1928.

TABLE 4.—ACRES FARMED AND DISTRIBUTION OF OPERATORS.

	Owner	Owner-Renter	Renter
Number Operators	34	19	17
Acres per Farm	137.2	188.2	122.7
% of Total Area Farmed by	45.2	34.6	20.2
% of Operators Farming			
161 or more acres	23.5	47.4	17.6
101 to 160 acres	35.3	42.1	35.3
100 or less acres	41.2	10.5	47.1

Table 4 shows the size of farms operated and the distribution of operators in three size groups. The average number of acres farmed was 147.56 acres. The owner-renters farmed the largest area, 188.2 acres. The owners farmed 137.2 acres and the tenants 122.7 acres. The largest farm was 600 acres and the smallest 34. Seventy per cent of the farms were less than 160 acres, and over one-third of the farms were less than 100 acres.

Table 5 shows the capital investment of three classes of farm operators. The average capital investment was $8,215. The capital of owners and owner-renters was almost the same, being $10,981 for owners and $10,039 for owner-renters. The straight tenant had only $644 capital on the average. Only eight per cent of the owners had less than $5000 capital, while no tenant had more than $5000.

TABLE 5.—AMOUNT OF CAPITAL USED.

	Owner	Owner-Renter	Renter
Number Operators	34	19	17
Ave. Cap. per Operator	$10,981	$10,039	$644
% of Total Cap. Used by	64.9	33.2	1.9
% of operators using cap. of:			
$8501 or more	50.	31.6	0
$5,001 to $8,500	41.2	47.4	0
$5,000 or less	8.2	21.	100

The smallest capitalization was $133 and the highest was $51,948. There were only six operators with more than $20,000 capital.

TABLE 6.—EXPENSES OF FARM OPERATORS.

	Owner	Owner-Renter	Renter
Number Operators	34	19	17
Average Expenses per Operator	$779.	$1,168	$295
% of Total Expenses for	49.3	41.3	9.4
% of Operators Having Expenses of:			
$551 or more	44.1	42.1	11.8
$251 to $550	29.4	42.1	23.5
$250 or Less	26.5	15.8	64.7

Operating expenses are shown in Table 6. The owner-operator had an average expense of $779; the owner-renter $1168; and the renter $295. Obviously, if a man has little income, he can have little expense. This would apply particularly to the tenant. Operating expenses include all cash farm operating expenses including hired labor, taxes, interest, and allowance for family labor used on the farm, and board of hired workers, but does not include any family living expenses. Operating expenses of owner-renters would be expected to be large because it includes rents of land. Wherever these rents are cash and where they are on a share basis, it is reflected in the additional labor expense of producing the landlord's part of the crop. Only four farms had expenses in excess of $2000. One farm had a total expense account of $6867. Four operators had less than $100 expense.

The total receipts from the farm business are given in Table 7. The receipts per farm averaged $1211. The owner-operator almost exactly equaled this average in his receipts. The owner-renter had an income of 50 per cent more than this, while the renter had only about half the income of the owner.

TABLE 7.—RECEIPTS OF FARM OPERATORS.

	Owner	Owner-Renter	Renter
Number Operators	34	19	17
Average Receipts per Operator	$1,227	$1,783	$540
% of Total Receipts for	49.2	40	10.8
% of Operators Having Receipts of:			
$1,001 or more	41.2	52.6	11.8
$501 to 1000	35.3	21.1	23.5
$500 or Less	23.5	26.3	64.7

Putting Tables 6 and 7 together will give Table 8, showing the farm income, or more specifically the income from capital and operator's labor. The average income was $444, again almost exactly the income of the average owner operator. Owner-renter operators' income after deducting expenses was $614, while the renters' income was $245. Only one-third of all operators had more than $500 income from capital and operator's labor, and one-third of them had less than $100. The largest income on this basis was $5,279 received by an owner operator and the smallest was $601 shown by a tenant operator. Three-eighths of the owners, .1 of the owner-renters, and .4 of the tenants, had less than $100 income.

TABLE 8.—INCOME FROM CAPITAL AND OPERATOR'S LABOR

	Owner	Owner-Renter	Renter
Number Operators	34	19	17
Average Income per Operator	$447	$614	$245
% of Total Income for	49.1	37.6	13.3
% of Operators Having Income of:			
$501 or More	32.4	52.6	29.4
$101 to $500	29.4	36.9	29.4
$100 or Less	38.2	10.5	41.2

Labor incomes are shown in Table 9. It should be remembered that labor income is what is left for the operator's wages after he pays interest at a normal rate on his capital. In other words, interest on investment deducted from the figures in Table 8 would give labor income, or the reward of the operator over and above his home and what products the farm contributed toward his living. The owners lack $99 of paying 5 per cent interest on investment. In other words, they lack $99 of drawing any wages at all above the farm's contribution toward their living. The owner-renters had $112 for wages of the operator, and

the tenants had $212. Two-thirds of all operators made less than $200 in wages. One operator made $2682. As Table 9 shows, most of the owners are in the low income group.

TABLE 9.—LABOR INCOME OF FARM OPERATORS

	Owner	Owner-Renter	Renter
Number Operators	34	19	17
Average Labor Income per Operator	$99	$112	$212
% of Operators with Labor Income of:			
$201 or More	20.6	42.1	47.1
$149 to $200	26.4	26.3	47.1
$150 or less	53.	31.6	5.8

Money Available for Saving and Living.—However important the labor income is in the study of a farm business, from the standpoint of farm living, other factors occupy a more important place. As Professor Adams indicates, "Funk found that it is what the farm furnishes directly toward living expenses of his family which enables the farmer to get along, even though his crops are poor or the loss on his livestock eats up his profits. Food and shelter are the important requisites of life, and a good proportion of these necessaries are furnished by the farm in addition to the income derived from the sale of farm products. The labor income is, therefore, not the limiting factor in determining how much a farmer shall have to eat, but it is for the wage earner in the city."[1] In view of this fact it is thought desirable to give considerable attention to the money available for saving and living, since it is this sum which is of most vital concern to the farm families. Money available for saving and living is the difference between actual receipts and actual expenditures. Actual receipts include everything which has been taken in on the farm, including the increase in capital. Actual expenditures include all expenses in the farm operation, but do not include the amount for unpaid family labor, or the interest on the capital invested. It is therefore observed that some very important expense items are eliminated. Yet they are not items which come directly out of the operator's bank account, and hence do not occupy such an important place in those matters which concern the operator's every day living. He is more concerned with what he has to meet current expenses. For this reason it is the purpose of this study to give considerable attention to the money available for saving and living, and to factors regarding the living of farm families.

Table 10 gives the figures for the farms on this basis. The average amount of money for family living and savings was $624. This

1. Adams, R. L., Farm Management, p. 269.

is a quite different figure from that of labor income. The amount for owners was $632, for owner-renters $811, and for renters just under $400. A few rather large sums in the first two classes make the average some distance above the mode. Two-thirds of all farms had less than $600 for living and saving. The largest item was $5529. There were six farmers that actually went into debt, one to the extent of $460.

TABLE 10.—MONEY AVAILABLE FOR FAMILY LIVING AND SAVING.

	Owner	Owner-Renter	Renter
Number Operators	34	19	17
Average Money Available for Living and Saving	$632	$811	$397
% of Total Money Available for Living and Saving for	49.2	35.3	15.5
% of Operators with Money Available for Living and Saving of:			
$601 or more	32.4	42.1	23.5
$251 to $600	32.4	36.8	29.4
$250 or Less	35.2	21.1	47.1

TABLE 11.—RELATION OF ACRES FARMED TO MONEY AVAILABLE FOR LIVING AND SAVING*

Acres Farmed	Money Available for Living and Saving							
	Total Operators		Highest $601 and above		Medium $251 to $600		Lowest $250 and below	
	No.	%	No.	%	No.	%	No.	%
Total Operators	70	100	23	32.9	23	32.9	24	34.2
Total Operators	70	100	23	100	23	100	24	100
Acre Range								
Highest 161—above	20	28.6	10	43.5	3	13.1	7	29.2
Medium 101-160	26	37.1	9	39.1	13	56.5	4	16.7
Lowest 100—below	24	34.3	4	17.4	7	30.4	13	54.1

*Note: The first line representing total operators shows the proportion of operators in the three divisions of money available for saving and living. The second line representing total operators shows the same proportion of operators in the divisions, but as a total for each column under the three divisions of money available for saving and living. Thus, the table reads: Of the 70 operators, 23 operators or 32.9 per cent had $601 or above; 23 operators or 32.9 per cent had $251-$600; and 24 operators or 34.2 per cent had $250 or less available for living and saving. Of the 23 operators or 100 per cent, 10 operators or 43.5 per cent who had $601 or more available for living and saving were farming 161 or more acres; of the 23 operators having $251-$600 available for living and saving, 3 operators or 13.1 per cent were farming 161 or more acres; and of the 24 operators having $250 or less available for living and saving, seven operators or 29.2 per cent were farming 161 or more acres. In succeeding table of this type the second line of totals is omitted.

Inter-relations of Factors in the Farm Business.—The preceding tables have been devoted to a comparison of the three classes of farm operators. From this point on all operators will be considered as one class and the relationship between various efficiency factors for all operators will be studied. Table 11 is a comparison between acres farmed and amount of money available for living and saving. There seems to be a tendency for the large amounts for living and saving to occur on the larger farms. The lower amounts were predominant on the smaller farms and a study of the individual records showed that this latter group consistently supplemented their meager returns from the farm by incomes from outside enterprises.

TABLE 12.—RELATION OF SIZE OF FAMILY TO MONEY AVAILABLE FOR LIVING AND SAVING FOR THE 70 FARM FAMILIES.

Size of Families	Money Available for Living and Saving							
	Total families		Highest		Medium		Lowest	
			$601 and above		$251 to $600		$250 and below	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	23	32.9	23	32.9	24	34.2
Number in Family								
2	23	32.9	7	30.4	8	34.8	8	33.3
3-4	28	40.0	10	43.5	9	39.1	9	37.5
5—8	19	27.1	6	26.1	6	26.1	7	29.2

Table 12 is a comparison of size of family and amount available for living and saving. So far as this small sample indicates, there is no correlation between size of family and amount of money available for living and saving. The larger number in the middle class is only the natural grouping of a normal frequency.

Table 13 shows the relationship between the age of operator and labor income. The age grouping was purposely made to include about one third of the sample in each age group. Here again we find a tendency for the highest labor income to be received by the youngest group, and the lowest labor income to be received by the oldest group. For instance, ten out of twenty-three farms in the high income group were in the youngest age group. While eleven out of twenty-five in the lowest income group were in the highest age group. Of course there are numerous other factors that enter, one prominent factor being that land owned was more common in the older group, and throughout the study it is clearly indicated that the ownership of land makes it difficult for a man to show a reasonable labor income. In other words, it was exceedingly difficult

to make 5 per cent interest on investment and have anything left for wages other than those products furnished by the farm.

TABLE 13.—RELATION OF AGE OF OPERATOR TO LABOR INCOME FOR THE 70 FARM OPERATORS.

Age of Operators	Total Operators		Labor Income Range					
			Highest $201 and above		Medium $149 to $200		Lowest $150 and below	
	No.	%	No.	%	No.	%	No.	%
Total Operators	70	100	23	32.9	22	21.4	25	35.7
Age Range								
Youngest 23-41 yrs.	22	31.4	10	43.5	7	31.8	5	20.0
Medium 42-51 yrs.	24	34.3	7	30.4	8	36.4	9	36.0
Oldest 52-75 yrs.	24	34.3	6	26.1	7	31.8	11	44.0

Size of family was compared to labor income in Table 14. There is apparently no relation between size of family and labor income. A larger number of farms in each labor income group appears in the middle group in size of family.

TABLE 14.—RELATION OF SIZE OF FAMILY TO LABOR INCOME FOR THE 70 FARM OPERATORS.

Size of Families	Total families		Labor Income Range					
			Highest		Medium		Lowest	
			$201 and above		$149 to $200		$150 and below	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	23	32.9	22	31.4	25	35.7
Number in Family								
2	23	32.9	7	30.4	7	31.8	9	36.0
3-4	28	40.0	10	43.5	9	40.0	9	36.0
5-8	19	27.1	6	26.1	6	27.3	7	28.0

Table 15 shows the correlation between age of operator and size of farm. Aside from the fact that the old men are on the little farms, no other tendency is conspicuous. Half of the men over 51 years of age were on farms of less than 100 acres. In the middle age and young groups there is no tendency to drift in any particular direction. The youngest men seem to be on the middle size farms, and few of them on the small farms.

TABLE 15.—RELATION OF ACRES FARMED TO AGE OF OPERATOR FOR THE 70 FARM OPERATORS.

Acres Operated	Total Operators		Range of Age of Operators					
			Youngest		Medium		Oldest	
			23-41		42-51		52-75	
	No.	%	No.	%	No.	%	No.	%
Total Operators	70	100	22	31.4	24	34.3	24	34.3
Acre Range								
Highest 161—above	20	28.6	7	31.8	9	37.5	4	16.7
Medium 101—160	26	37.1	11	50.0	7	29.2	8	33.3
Lowest 100—below	24	34.3	4	18.2	8	33.3	12	50.0

In this study there was no relation between acres farmed and labor income. The uniformity of distribution of any labor income class through out the entire range in size of farm is rather marked. This material is presented in Table 16.

TABLE 16.—RELATION OF ACRES FARMED TO LABOR INCOME FOR THE 70 FARM OPERATORS

Acres Farmed	Total Operators		Labor Income Range					
			Highest		Medium		Lowest	
			$201 and above		$149 to $200		$150 and below	
	No.	%	No.	%	No.	%	No.	%
Total Operators	70	100	23	32.9	22	31.4	25	35.7
Acre Range								
Highest 161—above	20	28.6	6	26.1	6	27.2	8	32.0
Medium 101—160	26	37.1	9	39.1	8	36.4	9	36.0
Lowest 100—below	24	34.3	8	34.8	8	36.4	8	32.0

On the other hand there does appear a distinct relationship between amount of capital and the money available for living and saving. This is shown in Table 17, and illustrates clearly that "to him that hath shall be given". It is easier to have a good living if you have capital to work for you along with your own efforts. Thirteen farms out of twenty-three in the high income group were also in the high capital group. While in the low income group eleven out of twenty-four were in the low capital group.

TABLE 17.—RELATION OF CAPITALIZATION TO MONEY AVAILABLE FOR LIVING AN SAVING FOR THE 70 FARM OPERATORS.

Capitalization	Money Available for Living and Saving							
	Total Operators		Highest		Medium		Lowest	
			$601 and above		$251 to $600		$250 and below	
	No.	%	No.	%	No.	%	No.	%
Total Operators	70	100	23	32.9	23	32.9	24	34.2
Capitalization Range								
Highest $8501-above	23	32.9	13	56.6	5	21.7	5	20.9
Medium $5001-$8500	23	32.9	5	21.7	10	43.5	8	33.3
Lowest $5000-below	24	34.2	5	21.7	8	34.8	11	45.8

On a labor income basis the reverse situation seems to be true. This is demonstrated in Table 18. The high labor income seemed to be on the farms with a small amount of capital and the low labor income on those farms with a large amount of capital. For instance, eleven farms out of twenty-three in the high labor income group had less than $5000 capital. Exactly half of the farms in the middle labor income group were in this capital group, while only two out of twenty-five farms in the low labor income group were in this same capital group, and eleven out of twenty-five in the low labor income group were in the high capital class.

TABLE 18.—RELATION OF CAPITALIZATION TO LABOR INCOME.

Capitalization			Labor Income Range					
	Total Operators		Highest		Medium		Lowest	
			$201 and above		$149 to $200		$15 and below	
	No.	%	No.	%	No.	%	No.	%
Total Operators	70	100	23	32.9	22	31.4	25	35.7
Capitalization Range								
Highest $8501-above	23	32.9	7	30.4	5	22.7	11	44.0
Medium $5001-$8500	23	32.9	5	21.8	6	27.3	12	48.0
Lowest $5000-below	24	34.2	11	47.8	11	50.0	2	8.0

Some supplementary factors are included as perhaps throwing a little light on the standards of operation of owners, owner-renters, and tenants. These will be considered in the next few pages. Table 19 shows the frequency of automobiles, trucks, and tractors in the three operator classes. As one might expect, farm owners more often had automobiles.

TABLE 19.—FARM OPERATORS WHO HAD OR DID NOT HAVE AUTOMOBILE, TRUCK, OR TRACTOR

	Total Operators		Owner		Owner-Renter		Renter	
	No.	% %	No.	%	No.	%	No.	%
Total Operators	70	100	34	100	19	100	17	100
Had Automobile	47	67.1	25	93.5	15	78.9	7	41.2
Had No Automobile	23	32.9	9	26.5	4	21.1	10	58.8
Had Truck	2	2.9	0	0	2	10.5	0	0
Had No Truck	68	97.1	34	100	17	89.5	17	100
Had Tractor	7	10.0	3	8.8	4	21.1	0	0
Had No Tractor	62	90.0	31	91.2	15	78.9	17	100

Trucks were not frequent in either operator class. It seems that owner-renters are more addicted to truck and tractor possession than are either straight owners or tenants. This, one might attribute to the tendency for owner operators to possess sufficient capital to make possible the purchase of a truck or a tractor, and also to the tendency of this group to include many successful individuals in the transition stage between tenancy and full-ownership.

The cooperative attitude in exchanging labor with neighbors is indicated in Table 20. Most owners, all owner-renters, and only a portion of the tenants exchanged labor with neighbors. The extent to which labor was exchanged is not measured quantitatively but only relatively, but this is deemed sufficient to indicate the prevalence of the practice in these various classes of operators.

TABLE 20.—EXTENT TO WHICH FARM OPERATORS EXCHANGED LABOR WITH NEIGHBORS

Exchange Labor with Neighbors	Total Operators		Owner		Owner-Renter		Renter	
	No.	%	No.	%	No.	%	No.	%
Total	70	100	34	100	19	100	17	100
Frequently	22	31.4	12	35.3	8	42.1	2	11.7
Occasionally	38	54.3	19	35.9	11	57.9	8	47.1
Never	10	14.3	3	8.8	0	0	7	41.2

Table 21 indicates a group of miscellaneous observations in relation to the type of ownership of the various operators. While this is a subjective measurement and therefore open to some criticism, these comparisons do indicate to a certain extent the habits of the three classes of operators in utilizing certain agencies which might be taken as an indicator

TABLE 21.—EXTENT TO WHICH FARM OPERATORS MADE USE OF AGENCIES FOR IMPROVING FARMING AND MADE CHANGES IN METHODS AS A RESULT OF THESE AGENCIES

		Total Operators		Owner		Owner-Renter		Renter	
		No.	%	No.	%	No.	%	No.	%
Use Agricultural Bulletins	Total	70	100	34	100	19	100	17	100
	Freq.	11	15.7	4	11.8	6	31.6	1	5.9
	Occ.	24	34.3	18	52.9	3	15.8	3	17.6
	Never	35	50.0	12	35.3	10	52.6	13	78.5
Observe Market Report	Freq.	22	31.4	13	38.2	8	42.1	1	5.9
	Occ.	38	54.3	19	55.9	9	47.4	10	58.8
	Never	10	14.3	2	5.9	2	10.5	6	35.3
Use Advice from Agricultural College	Freq.	9	12.8	4	11.7	5	26.3	0	0
	Occ.	20	28.6	14	41.2	3	15.8	3	17.6
	Never	41	58.6	16	47.1	11	57.9	14	82.4
Use Advice from County Agent	Freq.	7	10.0	2	5.9	5	26.3	0	0
	Occ.	17	24.3	9	26.5	6	31.6	2	11.8
	Never	46	65.7	33	67.6	8	42.1	15	88.2
Use Advice from Farm Papers	Freq.	23	32.9	13	38.2	8	42.1	2	11.7
	Occ.	40	57.1	19	55.9	9	47.4	12	70.6
	Never	7	10.0	2	5.9	2	10.5	3	17.7
Attend Farmers' Week	Yes	10	14.3	6	17.6	4	21.1	0	0
	No	60	85.7	28	82.4	15	78.9	17	100
Changes in Farming as Result of use of Agencies	Freq.	9	12.9	4	11.7	5	26.3	0	0
	Occ.	40	57.1	23	67.7	11	57.9	6	35.3
	Never	21	30.0	7	20.6	3	15.8	11	64.7

of progressive attitude on the part of that operator. It is quite clear in all of these factors that the renter seldom takes advantage of such services as the county agent, market reports, agricultural extension workers, etc. Owner-renters and owners do not differ greatly in the extent to which they utilize these agencies. An interesting observation is that only a small per cent of all operators actually utilize these agencies. In other words, efforts of this type are not reaching any very great portion of farm operators. Farm papers would seem to be the most effective means of reaching the man on the farm. Participation in activities such as Farmers' Week was very distinctly limited to those living on or near improved highways. Approximately one third of the operators would not admit that they were affected in any way in their farming operations by any of these agencies. It is to be doubted that this was exactly the case. It would seem to be very difficult for even the farm operator to

recognize the source of a change in his farming system. No doubt changes have occurred, and these changes must have come in most cases from efforts external to the farm originally. Quite true, they may have come from a neighboring farmer. The chances are, however, that he got his idea from a farm paper, the county agent, or some other agency for spreading the gospel of improved practice.

Summary.—A study of the farm business indicates the following significant facts regarding the 70 farms:

1. The average size farm was 147.56 acres, the average size being greatest for the owner-renters, and smallest for the renters.
2. Approximately 70 per cent of the operators operated farms of 160 or less acres.
3. The average capitalization was $8,215, the average being greatest for the owners, and smallest for the renters.
4. The average expenses were $764.77 per farm.
5. The average receipts were $1,211 per farm.
6. The average income from capital and operator's labor was $443.96 per farm.
7. The average labor income was $33.14 per farm, being lowest for the owners, and highest for the renters.
8. The average amount of money available for saving and living was $623.74, the highest average being for the owner-renter families, and the lowest for the renter families.
9. There was a slight tendency for those who operated small farms to be in the lowest range of money available for living and saving.
10. No relationship existed between size of family and money available for living and saving.
11. There was very little dependence of labor income upon age of operator.
12. Little relationship existed between size of family and labor income.
13. There was a tendency for the younger operators to operate large and medium sized farms.
14. There was very little dependence of labor income upon size of farm.
15. Those operators who were in the large capitalization groups were in the highest division of money available for living and saving.
16. Those having the larger capitalization had the smaller labor income.
17. Sixty-seven and one-tenth per cent of the families had an automobile 2.9 per cent had a truck, and 10 per cent had a tractor.
18. Over one-half (54.3 per cent) of the operators exchanged labor occasionally with neighbors.
19. Fifty per cent of the farm operators used agricultural bulletins; 54 per cent observed market reports occasionally, 41.5 per cent used

advice from the Agricultural College; 34.3 per cent used advice from the county agent; 57.1 per cent used advice from farm papers; and 14.3 attended Farmers' Week.

III. EDUCATION AND READING MATTER OF FARM FAMILIES

Education.—It was impossible to relate the education of a family to the other factors of family living except as measured by a standard, because of the fact that education is an individual rather than a family attainment. Therefore, it was necessary to set up a standard, to rate the individuals in each family, and to evolve an educational index by which the family group as a whole could be represented.

The educational index of a given family represents the educational attainments of all the members of the family considered as a group. In determining this index, the investigators found it was necessary to provide two standards for measurement, one for children and one for adults. All persons 18 years of age and younger were considered children; all persons 19 years of age and older were classified as adults.

The measurement of adults was based on highest educational accomplishment of each person, but for children it was necessary to measure accomplishment in terms of educational standards accepted as normal for children of a given age.

The standard by which children were measured is given in the following table.

TABLE 22.—AGE-GRADE EDUCATIONAL STANDARD FOR CHILDREN

Years of Age	Grade in School
6	1
7	2
8	3
9	4
10	5
11	6
12	7
13	8
14	9-First Year High School
15	10-Second Year High School
16	11-Third Year High School
17	12-Fourth Year High School
18	High School Graduate

If the school attainment of a child corresponded with his age, that is, if a nine-year-old boy was in the fourth grade, he was considered to have met the standard. If, however, a nine-year-old child was in the

fifth grade, he was considered to be above standard. If at that age he was in the third grade, he was considered to be below the standard.

Judged by the above standard, the children represented by these rural families rated as follows:

At standard	39.1 per cent.
Below standard	37.5 per cent.
Above standard	23.4 per cent.
Total	100.0 per cent.

After a child's educational attainment in comparison with his age was ascertained, he was rated by the following rating scale for children. The scale for adults is also shown.

TABLE 23.—RATING SCALE FOR EDUCATIONAL ACCOMPLISHMENTS.

Children		Adults	
2 or more years above standard	5.0	Attended College	5.0
1 year above standard	4.0	High School Graduate	4.0
Standard	3.0	Attended High School	3.0
1 to 2 years below standard	2.0	8th Grade Graduate	2.0
3 to 4 years below standard	1.0	Attended Grammar School	1.0
5 or more years below standard	0.0	No Schooling	0.0

This system of rating was used because of its apparent fairness to the two types of family groups represented; families composed of adults and children and families composed of adults only.

In determining the educational index of a family, each adult was rated according to the rating scale for adults. Each child was judged by the age-grade standard and then rated according to the rating scale for children. Children under six years were not included.

The educational index of a family represents the educational rating of each member of the family (secured by the method described) divided by the number of persons in the family who were six or more years of age.

TABLE 24.—DISTRIBUTION OF FAMILIES AS TO EDUCATIONAL INDEX.

Educational Index	Total		Owner		Owner-Renter		Renter	
	No.	%	No.	%	No.	%	No.	%
Total	70	100	34	100	19	100	17	100
Index Range								
Highest 3.1-4.7	25	35.7	16	47.1	6	31.6	3	17.6
Medium 2-2.6	21	30.0	8	23.5	7	36.8	6	35.3
Lowest 1-1.7	24	34.3	10	29.4	6	31.6	8	47.1

According to Table 24 the owner families as a group had more education than other families. The owner-renter families had a medium, and the renter families as a group had the least education of the rural families considered.

The upper range of educational indexes, 3.1 to 4.7, included 47.1 per cent of the owner families, 31.6 per cent of the owner-renter, and 17.6 per cent of the renter families. This upper range represents an average for children from slightly above standard to almost two years above standard, and, for adults, from high school attendance to two and one-half years of college attendance. There were no persons with academic degrees in the group, However, there were several graduates of junior colleges and some who had additional college training.

The medium range represents an average of slightly more than one year below standard for children, and approximately graduation from the eighth grade for adults. In this range were about one-fourth of the owner families and one-third of the owner-renter and renter families.

The lower range of educational indexes represents from two to four years below the standard for children, and primarily represents grammar school attendance for the adults. The educational index of approximately one-third of all the families was within this range, representing 29.4 per cent of the owners, 31.6 per cent of the owner-renters, and 47.1 per cent of the renter families.

In general the largest proportion of owner families was within the upper range of educational indexes and the smallest group of the owner families was in the lower range of educational indexes. The owner-renter families were almost equally divided among the three index ranges. The proportion of renters increased as the educational indexes decreases. Among the adults above 40 years of age a large proportion of those with high school and college training were women, and as a group the women had more education than the men.

Newspapers and Magazines Read by Farm Families.—All of the data regarding newspapers and magazines in this study are based on publications actually read by the majority of the members of the family. Any publications received in the home that were not read by at least three-fourths of the members of the family (children too young to read not included) are not considered. On the other hand, magazines, borrowed from neighbors and friends and read by the family are included in this study. Most of the previous studies of this type have dealt with the reading material found in the farm home and have given little attention to determining the extent to which these publications were utilized by various members of the families. Although this study takes into consideration only newspapers and magazines read by three fourths of the

TABLE 25.—DISTRIBUTION OF FAMILIES AS TO MAGAZINES AND NEWSPAPERS READ*

Newspapers and Magazines read	Total		Owner		Owner-Renter		Renter	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	34	100	19	100	17	100
Range								
Highest 9-14	21	30.0	9	26.5	8	42.1	4	23.5
Medium 6-8	27	38.6	16	47.0	6	31.6	5	29.4
Lowest 1-5	22	31.4	9	26.5	5	26.3	8	47.1

*Church and Lodge papers were included.

members of the family, many homemakers stated that there was little such reading matter entering their homes that was not read by the majority of the members.

The number of magazines and newspapers read by the farm families varied from one to 14. Of the total group 30 per cent read from nine to 14 newspapers and magazines, and 38.6 per cent from six to eight, more than two-thirds of the families reading six or more papers and magazines.

The owner-renter families read the greatest number of papers and magazines, the owner families read somewhat less, and the renters read the fewest number.

An examination of Table 26 shows that farm papers were the most popular type of reading material among the 70 farm families. The farm papers were nearly twice as numerous as their nearest competitors, and were read by the largest proportion of the families, 90 per cent of the group, and these families read an average of 2.4 farm papers each. Daily papers and women's magazines ranked second as to total number read. The daily papers had a larger distribution in the community, however. Approximately three-fourths of the families took daily papers, and more than one-third of the 70 families read two daily papers, making an average of 1.4 for each family taking papers. The 74 women's magazines were distributed among 64.3 per cent of the families. General reading magazines were in only 37.1 per cent of the homes. The interest of the farm families in the local newspaper is shown by the fact that all but nine families took a local paper, and three families read two local papers each. The additional local paper was in each case a local paper of a nearby community where the family had previously lived. Weekly newspapers other than local were read in 70 per cent of the homes, and religious papers were read in approximately one-fourth of the homes. A few of the latter group read more than one religious paper. Lodge papers were in comparatively few homes.

TABLE 26.—PAPERS AND MAGAZINES READ BY FARM FAMILIES*

	Number of Papers and Magazines Read	Families Reading Papers and Magazines		Number of Papers and Magazines Read per Family****
		No.	%	
Total Families		70	100	
Total papers and magazines	480			
Local Papers**	64	61	87.1	1.05
Daily Papers	74	52	74.3	1.4
Weekly Papers***	54	49	70.0	1.1
Farm Papers	154	63	90.0	2.4
Gen. Magazines	35	26	37.1	1.3
Women's Magazines	74	45	64.3	1.6
Religious Papers	20	17	24.3	1.2
Lodge Papers	5	3	4.3	1.7
Owner				
Total Families		34	100.0	
Total papers and magazines	234			
Local Papers**	32	31	91.2	1.03
Daily Papers	42	26	76.5	1.6
Weekly Papers***	26	23	67.6	1.1
Farm Papers	67	29	85.3	2.3
Gen. Magazines	16	11	32.3	1.5
Women's Magazines	34	21	61.8	1.6
Religious Papers	12	12	35.3	1.0
Owner-Renter				
Total Families		19	100.0	
Total papers and magazines	137			
Local Papers**	18	16	84.2	1.1
Daily Papers	18	16	84.2	1.1
Weekly Papers***	16	15	78.9	1.06
Farm Papers	47	18	94.7	2.6
Gen. Magazines	9	8	42.1	1.1
Women's Magazines	25	15	78.9	1.7
Religious Papers	4	2	10.5	2.0
Lodge Papers	0	0	0	0
Renter				
Total Families		17	100.0	
Total papers and magazines	109			
Local Papers**	14	14	82.3	1.4
Daily Papers	14	10	58.8	1.4
Weekly Papers***	12	11	64.7	1.1
Farm Papers	40	16	94.1	2.5
Gen. Magazines	10	7	41.2	1.4
Women's Magazines	15	9	52.9	1.7
Religious Papers	4	3	17.6	1.3
Lodge Papers	0	0	0	0

*This table reads: Of the 70 farm families, 61 families, which is 87.1 per cent of the group, read local papers. These 61 families read 64 local papers, an average of 1.05 papers per family. Of the 34 owner families 31, or 91.2 per cent, read 32 local papers, an average of 1.03 per family; etc.

**Weekly ***Not local

****The figures in this column represent the average number of papers or magazines read by each family reading the given type of material. Example,—local papers.

The newspapers and magazines read by the families consisted mainly of farm papers, local papers, daily papers, non-local papers, and women's magazines. The number of magazines and newspapers read, an average of approximately seven for each family, seems to be a generous amount of reading material. However, an examination of the data shows a lack of general reading, especially of literary magazines.

IV. DIET OF THE FARM FAMILIES

Plan for Study of Diet of Farm Family.—Before any comparison between diet and the other factors of farm living could be made, some basis for determining the quality of the diet had to be established. In developing the standard it was necessary, in addition to ascertaining the kind and quantity of food consumed, to do the following: First, to determine a method of calculating calorie value; second, to determine the unit to represent the family; third, to develop a standard based on research by which the quality of a diet could be judged; and, fourth, to develop a system of rating by which the dietaries could be classified for purposes of comparison. The development of the standard, its application, and the facts regarding diet of these farm families, are given in the following pages.

Collection of Food Consumption Data.—The data for this dietary study were secured by the survey method, in the same manner as the food consumption data were secured by the United States Department of Agriculture under the direction of E. L. Kirkpatrick.*

The food consumed by the farm families was from two sources, that produced on the farm and that purchased from stores, other producers, etc. The amount, and where possible, the value, of the former was secured. Both the amount and cost of the latter were secured for each family. This information was given by the homemaker in the form of an estimate, covering the period from March 1, 1927 to March 1, 1928. The cost of the food purchased was estimated in two forms, (1) the amount spent for each type of food for the year, and (2) the weekly grocery bill for various seasons of the year. These two estimates were secured and compared for the purpose of determining the probable degree of accuracy of such estimates. The difference between the two estimates of food costs for a family for a year varied from .1 per cent to 17.3 per cent for individual homemakers. The average variation for all homemakers was 5.3 per cent.

*Hawley, Edith
Average Quantity, Cost and Nutritive Value of Food Consumed by Farm Families, U. S. Dept. of Agriculture, Bureau of Home Economics, Preliminary report, 1926.

Refuse was determined by the approximate refuse values, given by Atwater and Bryant,‡ for the various foods. In addition an allowance of ten per cent for waste was made in calculating these diets.

As a further means of checking the accuracy of the food consumption data of this study, it is compared in Table 27 with two previous food consumption studies of farm families and one of workingmen's* families. These studies were also made by the survey method, the former under the auspices of the United States Department of Agriculture, and the latter by the United States Department of Labor.

The caloric intake per adult male unit per day for the families included in the present study varies only slightly (61 calories) from that of the Missouri farm families reported by Hawley, but the food consumption of the entire group studied by Hawley** (4370 calories) and the farm families studied by Funk# (4280 calories) was approximately 14 per per cent lower than in the present study. All three studies were much higher in caloric value than the standard of 3300 calories per adult male unit for farm families formulated by Hawley.

The consumption of cereals by the farm families in the study compared quite well with that of the Funk and Hawley studies and was within the percentage range of the Hawley standard. The comparison for sweets, sugar syrup, etc., was very similar to that of cereals. The fat consumption in the present study varied only slightly from that of the Hawley standard, the Hawley study of four states and the Funk study. The vegetable and fruit consumption in the present study was somewhat lower than that shown by the other studies, and the consumption of milk and cream, and of meat, eggs, and cheese was somewhat higher, although only slightly higher, than that of the Missouri families reported by Hawley.

On the basis of the average variation of only 5.3 per cent between the cost estimates for food purchases in this study, and on the comparison of caloric consumption and distribution of this study with the similar studies by Hawley and Funk, it would seem that the survey method for securing food consumption data may prove to be sufficiently accurate in that field of work.

‡Atwater, W. O. and Bryant, A. P., The Chemical Composition of American Food Materials, U. S. Department of Agriculture, 1899. Experiment Station Bul. 28. Reprinted 1906.

Funk, W. C. Value to Farm Families of Food, Fuel, and Use of House, 1916 U. S. Department of Agriculture Bul. 410. 1926

*U. S. Dept. of Labor, Bureau of Labor Statistics. Cost of Living in the United States, U. S. Dept. of Labor Bureau of Labor Statistics, Bul. 357.

**Hawley, Edith. Average Quantity, Cost and Nutritive Value of Food Consumed by Farm Famiies, U. S. Dept. of Agriculture, Bureau of Home Economics, Preliminary report, 1926.

†The low consumption of fruit and vegetables may have been due to the fact that a hail storm in June of the year of the survey destroyed many of the gardens and much of the fruit. Many of the homemakers stated that the fruit and vegetable consumption of their families had been much lower than usual that year as a result of the destruction caused by the hailstorm.

TABLE 27.—ENERGY DISTRIBUTION IN THREE FOOD CONSUMPTION STUDIES OF RURAL FAMILIES

	Caloric Intake per adult male unit per day*		Cereal		Vegetables and Fruits		Sweets (Sugar, Syrup, Honey, etc.)		Fats and Oils		Milk and Cream		Eggs, Meat, and Cheese		Protein	
	No. of Calories	% of Total	Calories per man per Day	% of Total Calories	Calories per man per Day	% of Total Calories	Calories per Man per Day	% of Total Calories	Calories per Man per Day	% of Total Calories	Calories per Man per Day	% of Total Calories	Calories per Man per Day	% of Total Calories	Calories per Man per Day	% of Total Calories
Standard by Hawley**	3300	100	880	28.25	630	18.20	350	10-11	620	20–17	360	10–12	460	14–15	328	9.9
Present Study:																
Average for All Families	5050	100	1321	26.2	516	10.2	560	11.1	676	13.4	991	19.6	986	19.5	687	13.6
Owners	5152	100	1313	25.4	482	9.4	541	10.1	701	13.7	1081	20.6	1034	20.4	718	14.1
Owners																
Renters	5220	100	1294	25.2	516	9.9	620	11.9	718	13.5	981	18.5	1091	21.0	711	13.6
Renters	4650	100	1367	29.8	584	12.6	533	11.6	580	12.7	817	16.8	786	16.5	599	12.9
Hawley***																
4 States	4370	100	1195	27.0	561	13.0	476	11.0	764	18.0	661	15.0	713	16.0	484	11.0
Hawley																
Missouri	4989	100	1213	24.0	671	13.0	486	10.0	878	18.0	899	18.0	842	17.0	548	11.0
Funk****	4260	100	1280	30.0	790	18.0	500	12.0	710	17.0	400	9.0	580	14.0	552	13.0

* Adult active male 18 to 60 years of age used as a basis for determination and comparison.
** Hawley, Edith. Average Quantity, Cost and Nutritive Value of Food Consumed by Farm Fzmilies.
*** Ibid.
**** Funk, W. C., Value to Farm Families of Food, Fuel, and Use of House, U. S. Department of Agriculture, Bul. 410.

Establishing a Standard to be Used for Judging Adequacy of Diets.—Dietary Calculation.—In analyzing the data and in making dietary calculations for the food used by these farm families, the investigators used the system given by Mary Swartz Rose, "To Abbreviate Dietary Calculations When Large Quantities of Food are Involved."*

The protein and minerals were not calculated in this study, but the diets were checked for adequacy in these food constituents by the proportions suggested by Mary Swartz Rose** for family dietaries.*** These proportions have been found to provide for the protein and mineral needs of family groups in the many dietaries in which they have been used. Also the mineral needs of children were partially taken care of by the increased milk requirements for families with children.

Selection of Unit to Represent the Farm Family.—After the dietary calculations had been made, it was necessary for purposes of comparison to reduce these computations to a unit basis that would represent the family. The adult active man was selected as the unit. In order to represent the family by the adult active man, the dietary scale formulated by Hawley# for farm families was used. In her dietary scale for farm families the food consumption of the adult active farm man is considered to be 3300 calories per day, or 1.2 times that of the average adult male whose requirement is 3000 calories and is expressed by the factor 1.0. The dietary scale for the proportional food requirement of the possible members of the family in terms of this unit as given by Hawley are used in computing the number of adult male units represented by each family in this study.

TABLE 28.—DIETARY SCALE FOR FARM FAMILIES

Individuals	Age	Energy Requirement in Terms of Adult Male Unit
Adult Male†	18 to 60	1.2
Adult Male	Over 60	1.0
Adult Female	18 to 60	1.0
Adult Female	Over 60	0.8
Boy	15 to 18	1.2
Girl	15 to 18	0.9
Child	6 to 10	0.7
Child	Under 6	0.4

†In this study 1.2 represents the requirement of a farm adult active male and is designated as the adult male unit.

*Rose, Mary Swartz, A Laboratory Handbook for Dietetics. Revised Edition, 1929, pp. 49-55. Adapted from "Abridged Dietary Calculations for Rations in Quantity", by A. R. Rose.
**Rose, Mary Swartz, The Foundations of Nutrition, pp. 428-444.
***See Table 26 of this study.
#Hawley, Edith; Average Quantity, Cost and Nutritive Value of Food Consumed by Farm Families U. S. Dep't. of Agriculture, Bureau of Home Economics, Preliminary Report, 1926, p. 7.

TABLE 29.—STANDARD* BY WHICH THE QUALITY OF THE VARIOUS DIETARIES WAS JUDGED.

	Caloric Range per Adult Male Unit per Day					
	2000-2999	3000-3999	4000-4999	5000-5999	6000-6999	7000-7999
Cereal Range	600 Calories to 40%	600 Calories to 40%	600 Calories to 40%	600 Calories to 40%	600 Calories to 40%	600 Calories to 40%
Minimum	600	600	600	600	600	600
Maximum	1200	1200	1600	2000	2400	2800
Vegetable and Fruit Range	450 Calories to 24%	450 Calories to 24%	450 Calories to 24 %	450 Calories to 24%	450 Calories to 24 %	450 Calories to 24%
Minimum	450	450	450	450	450	450
Maximum	720	720	960	1200	1440	1680
Sweets Range	300 Calories to 12%	300 Calories to 12%	300 Calories to 12%	300 Calories to 12%	300 Calories to 12%	300 Calories to 12%
Minimum	300	300	300	300	300	300
Maximum	360	360	480	600	720	840
Fats Range	300 Calories to 20%	300 Calories to 20%	300 Calories to 20%	300 Calories to 20%	300 Calories to 20%	300 Calories to 20%
Minimum	300	300	300	300	300	300
Maximum	600	600	800	1000	1200	1400
Milk Range Adults Minimum	400	400	400	400	400	400
Children and Adults Minimum	600	600	600	600	600	600
Protein Maximum	450	450	450	500	600	700

*The standard was made in consultation with Dr. Margaret C. Hessler, Associate Professor of Home Economics, University of Missouri. It was adapted from distributions for family dietaries from "Foundations of Nutrition", by Mary Swartz Rose, pp. 428-444

This table reads: Dietaries ranging from 2000 to 2999 calories per adult male unit per day should not have less than 600 or more than 1200 calories from cereals; not less than 450 or more than 720 calories from vegetables and fruits; not less than 300 or more than 360 calories from sweets, (sugar, honey syrup), etc.,; not less than 300 or more than 600 calories from fats and oils; not less than 400 calories from milk if the family is composed entirely of adults, and not less than 600 calories from milk if there are children in the family; and not more than 450 calories per adult male unit per day should be secured from protein.

Standard for Judging Quality of Diet.—The standard for evaluating the quality of diets in this study is given in Table 29. The standard was formulated by adapting the distributions from Rose's "Foundations of Nutrition,"* to these high calorie diets.

In general the system of adaptation was that of using the minimum number of calories provided by each food group in a 3000 calorie diet as the minimum for the present standard and of using the maximum per cent of the calories allowed for in a 3000 calorie diet as the maximum of the present standard for farm dietaries. For example: From 10 to 12 per cent of the total calories (300 to 360 calories), of a 3000 calorie diet should be provided by sugar, according to the standard by Rose. Adapting these proportions to a 5000 calorie diet would mean a minimum of

*Rose, Mary Swartz. "Foundations of Nutrition", pp. 428-444.

3000 calories and a maximum of 12 per cent of the 5000 calories. Therefore, a consumption of 300 to 600 calories of sugar would be permissible in a 5000 calorie diet according to the standard used in this study. Thus two things were emphasized in the standard, first, minimum requirements, and, second, good proportion among the various food groups in a diet. The need for the latter was especially evident in view of the high caloric value of a large number of the dietaries studied. The standard is expressed in terms of the adult male unit.

System of Rating.—After the standard for judging the quality of dietaries had been formulated, it was necessary to devise a system of rating so that the dietaries could be classified into groups of approximately equal quality. Since no rating system of this type had been used in previous studies, it was necessary to develop one to meet the needs of this study. The rating system developed was a series of penalties for undesirable deviation from the standard given in Table 29. The size of the penalties was determined by the persons formulating the standard and was based on what they considered the degree of comparative seriousness of each, in view of the scientific information available. Since the rating was a system of penalties, those with the lowest score were the highest quality diets.

TABLE 30.—PENALTIES FOR UNDESIRABLE DEVIATIONS FROM THE DIETARY STANDARD

Type of Deviation	Penalty
High Protein	2.0
High or Low in Cereal, Sugar, Fats	0.5
Inadequate Fruit and Vegetables	
Less than 450 Calories	3.0
Less than 350 Calories	4.0
Less than 250 Calories	5.0
Inadequate Milk	
Adults and Children: Adults Only	
Less than 600 cal: 400 cal.	3.0
Less than 400 cal: 200 cal.	4.0
Less than 200 cal: 100 cal.	5.0

The penalties range from .5 for too high or too low cereal, sugar, or fat to 5.0 for unusually low fruit and vegetable, or milk consumption. A penalty of 2.0 was placed on two to four thousand calorie diets which had more than 450 calories from protein per adult male unit per day, and the same penalty was placed on diets of five thousand calories and above in which protein calories composed more than 10 per cent of the total calories. No penalty was provided for low protein diets because there were no diets with less than 10 per cent of total calories from protein. The penalty on fruit and vegetables varied, beginning

with a penalty of three for diets with less than 450 calories per adult male unit per day from fruit and vegetables, to a penalty of four for less than 350 calories, and a penalty of five for less than 250 fruit and vegetable calories per male unit per day. No penalty was placed on too high vegetable or fruit consumption, as no family secured more than 24 per cent of its calories from that source. The penalty on less than standard milk consumption varied from three to five on a similar basis to that for fruit and vegetables. The minimum adequate standard for milk used by families with children was 600 calories, almost a quart per adult male unit per day. For families of adults a minimum standard of 400 calories, approximately two and one-third cups per adult male unit per day was used. This variation in standard was made because of the recognized importance of a quart of milk per day for every child*. Since high milk consumption is considered an asset, no penalty was placed upon it.

When rated by the standard given in Table 29 and penalized according to the penalties stated in Table 30, the 70 dietaries grouped themselves into three fairly distinct groups. For purposes of identification the groups are called A, B, and C grade diets. A brief description of each grade follows:

Grade A diet—Penalty 2 to 2.5.

No deficiencies. High protein.

Grade B Diet—Penalty 3.5 to 6.5.

Deficient in vegetables and fruit frequently, in milk, occasionally. High in protein, frequently. Some other minor variations from standard.

Grade C diet—Penalty 7 to 10.5.

Deficient in both fruit and vegetables, and milk, or very deficient in fruit and vegetables. High protein. Often high or low in fat or sugar, and occasionally in cereal.

TABLE 31.—DISTRIBUTION OF FARM FAMILIES AS TO CALORIC INTAKE

	No.	%	No.	%	No.	%	No.	%
Total Dietaries	70	100	34	100	19	100	17	100
Caloric Range								
2000-2999	1	1.4	0	0	0	0	1	5.9
3000-3999	10	14.3	2	5.9	3	15.8	5	29.4
4000-4999	24	34.3	13	38.2	6	31.6	5	29.4
5000-5999	18	25.7	9	26.5	5	26.3	4	23.5
6000-6999	11	15.7	7	20.6	3	15.8	1	5.9
7000-7999	6	8.6	3	8.8	2	10.5	1	5.9

*Sherman, H. C. and Hawley, Edith, Journal of Biological Chemistry, Vol. 53, 1922, p. 375.

Analysis of Dietaries of Farm Families.—The dietaries were studied from the view point of caloric value, variations from the standard quality or grade of diets, relation of quality to caloric value, expenditure for food and its relation to quality, cost per 100 calorie portion and its relation to quality, the comparison of food expenditure and cost per 100 calorie portion and the composition of the high, medium, and low cost diets.

The largest group of dietaries, 34.3 per cent, ranged from 4000 to 4999 calories. Half of the diets were higher than this in caloric value, a few providing more than 7000 calories per adult male unit per day. Less than 16 per cent ranged from 2000 to 3999 calories, within which range most dietary standards are to be found. The high calorie diets occurred most commonly among the owner families, and least frequently among the renter families.

Table 32 shows the characteristics of each dietary. The dietaries are grouped as to quality, grade A, B, and C, and as to the number and type of errors in each grade. The explanation of the symbols used in Table 32 is given in Table 33.

Table 32 shows that 40 per cent of the cases (28 families) had grade A diets, 45.7 per cent (32 families) had grade B diets, and only 14.3 per cent (10 families) had grade C diets. Not one of the grade A diets had a deficiency of any kind. The penalties on this group of diets were for using a larger proportion of certain food materials than seemed advisable. A common fault was using disproportionately large amounts of protein. This was due to the large amount of pork used, and in some cases to the very liberal use of eggs and of dried beans. Of the 28 grade A diets 64 per cent agreed with the standard, except for the high protein content. In nine diets there was a higher percentage of sugar, and in one there was a higher percentage of fat, than allowed for in the standard.

The B class diets were 32 in number. All of these diets were inadequate in either fruit and vegetables or milk, one diet having a slight deficiency in both milk and fruit and vegetables. More than four-fifths of the diets in this group were also high in protein content.

The grade C diets included 14.3 per cent of the families. Every diet in this group was below standard in fruit and vegetable content, some of them decidedly low. Almost two-thirds of them were also low in milk consumption, and all but one case were high in protein. Some diets in both class B and C varied from the standard in sugar, fat or cereal content.

The outstanding faults common to a very large proportion of the diets were the inadequate use of fruit and vegetables, and the very high consumption of foods rich in protein, especially meat.

TABLE 32.—DISTRIBUTION OF A, B, AND C QUALITY DIETS SHOWING IN WHAT FOOD GROUP EACH DIET WAS WITHIN THE STANDARD RANGE, BELOW THE MINIMUM STANDARD, AND ABOVE THE MAXIMUM STANDARD

Grade of Diet	No. of Penalties	Dietaries								Cereals	Vegetables and Fruits	Sugar	Fat	Milk	Protein
		Total		Owner		Owner-renter		Renter							
		No.	%	No.	%	No.	%	No.	%						
		70	100	34	100	19	100	17	100						
Total A		28	40.0	15	44.1	8	42.1	5	29.4						
Total A		28	100	15	100	8	100	5	100						
A	2	18	64.3	10	66.7	3	37.5	5	100						X
A	2.5	9	32.1	5	33.3	4	50.0	0	0.			X			X
A	2.5	1	3.6	0	0	1	12.5	0	0				X		X
Total B		32	45.7	14	41.2	9	47.4	9	52.9						
Total B		32	100	14	100	9	100	9	100						
B	3.5	1	3.1	0	0	0	0	1	11.1		—	X			
B	4.	2	6.3	2	14.2	0	0	0	0.		=				
B	5.	5	15.7	4	28.5	1	11.1		0		—				X
B	5.	1	3.1	0	0	1	11.1	0	0.	—	=	X			
B	5.5	1	3.1	1	7.2	0	0	0	0		—	—			X
B	5 5	2	6.3	0	0	1	11.1	1	11.1		—	X			X
B	5.5	1	3.1	1	7.2	0	0	0	0.		—		X		X
B	5.5	1	3.1	0	0	0	0	1	11.1		—		—		X
B	5.5	1	3.1	0	0	0	0	1	11.1	X	—				X
B	5.5	1	3.1	0	0	1	11.1	0	0.			X		—	X
B	5.5	1	3.1	0	0	0	0.	1	11.1			X		///	
B	6	5	15.7	1	7.2	2	22.2	2	22.2		=				X
B	6.5	3	9.3	1	7.2	1	11.1	1	11.1		=	—			X
B	6.5	5	15.7	4	28.5	1	11.1	0	0		=	X			X
B	6.5	1	3.1	0	0	1	11.1	0	0		—		X		X
B	6.5	1	3.1	0	0	0	0	1	11.1		—	—		—	

| | | |

TABLE 33.—EXPLANATION OF SYMBOLS USED IN TABLE 32.

Food Group	Symbol*	Variation From Standard
All Food Groups	—	Less than minimum of Standard
All Food Groups	x	More than maximum of Standard
Vegetable and Fruit	—	Less than 450 calories
Vegetable and Fruit	=	Less than 350 calories
Vegetable and Fruit	≡	Less than 250 calories
Milk and Cream		
Adults	—	Less than 400 calories
Adults	=	Less than 200 calories
Children and Adults	—	Less than 600 calories
Children and Adults	=	Less than 400 calories
Children and Adults	≡	Less than 200 calories

*No symbol indicates the diet considered was within the minimum and maximum range of the standard for the food group considered.

TABLE 34.—SUMMARY OF DISTRIBUTION OF DIETARIES AS TO QUALITY AND CALORIC VALUE.*

Calories per Adult Male Unit per Day	Total Dietaries		Grade A		Grade B		Grade C	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	28	40.0	32	45.7	10	14.3
Caloric Range								
2000-2999	1	100	0	0	1	100	0	0
3000-3999	10	100	1	10.0	6	60.0	3	30.0
4000-4999	24	100	3	12.5	14	58.3	7	29.2
5000-5999	18	100	10	55.6	8	44.4	0	0
6000-6999	11	100	8	72.7	3	27.3	0	0
7000-7999	6	100	6	100	0	0	0	0

*This Table Reads: Of the 10 diets composed of 3000 to 3999 calories one diet, or 10 per cent, was Grade A, 6 diets, or 60 per cent, were Grade B, and three diets, or 30 per cent were Grade C.

Caloric, or fuel value, is not necessarily a satisfactory index of the adequacy or quality of a diet. However, an examination of Table 34 shows a tendency for diets high in caloric value to be high in quality, and vice versa. However, there were several exceptions to the tendency. The proportion of the diets in each caloric range that were Grade A in quality continued to increase up to the 7000 to 7999 calorie range, all of which were Grade diets.

The relation of fuel value to quality of diet was further shown by the distribution of B and C grade diets. There was a tendency for the B quality diets to be proportionately more numerous in the medium sized dietaries and less frequent in the dietaries of comparatively high and comparatively low caloric value. The largest number of B quality diets,

14, was in the 4000 to 4999 calorie group; and a total of 28 diets, which was 92.5 per cent of the B grade diets, were within the range of 3000 to 5999 calories. The C grade diets were all in the 3000 and 4000 calorie range. The distribution of each quality of diets suggested an apparently high relationship between quality and fuel value of diet.

There is little evidence available as to the desirable upper limits of food intake. Considerable evidence is available, however, regarding minimum limits and proportions for good diets of lower caloric value. It was necessary to base the standard for judging the quality of these diets on the evidence available. The standard is therefore subject to error. It is possible that too great a caloric intake, even when in good proportions and when accompanied by considerable activity, may be inadvisable.

TABLE 35.—DISTRIBUTION OF FAMILIES ACCORDING TO EXPENDITURE FOR FOOD PER ADULT MALE UNIT PER DAY.

Food Expenditure per Adult Male Unit per Day	Total		Owner		Owner-Renter		Renter	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	34	100	19	100	17	100
Expenditure Range								
Highest $0.55-$0.78	21	30.0	15	44.1	5	26.3	1	5.8
Medium $0.43-$0.54	25	35.7	8	23.5	9	47.4	8	47.1
Lowest $0.24-$0.42	24	34.3	11	32.4	5	26.3	8	47.1

The total expenditure for food per adult male unit per day represents the average cost per day of all the food consumed by an active man 18 to 60 years of age for a given family. Since it represents the total food cost per adult male unit for a given family, the number of calories represented is not the same for each amount of expenditure or for each adult male unit. In dividing all the dietaries into three groups as nearly equal in size as was possible under the circumstances, the three following expenditure divisions resulted: 55 cents to 78 cents, upper expenditure range; 43 cents to 54 cents, medium expenditure range; and 24 cents to 42 cents, lower expenditure range.

The two things shown in Table 35 are the varying amounts which families spent for food and the differences in food expenditures for the owner, owner-renter, and renter groups.

The diets varied in cost from 24 cents to 78 cents per adult male unit per day, the highest being more than three times as much as the lowest cost diet. Among the three groups there was a tendency for the owner families to spend slightly more for food than the owner-renter

families, and for the renter families to spend somewhat less for food than the families of either of the other groups. The owner families consumed a much larger proportion of high cost diets than did either of the other groups, but the higher consumption of medium cost, and the lower consumption of low cost diets, by the owner-renters makes their average food expenditure per adult male unit only slightly lower than that of the owner families. However, in the renter group, with only one high cost diet and their other diets equally divided among the medium and lower expenditure range, it is evident that the renter families spent less for food than the other families in the group.

TABLE 36.—COMPARISON OF QUALITY OF DIET WITH EXPENDITURE FOR FOOD PER ADULT MALE UNIT PER DAY

Food Expenditure per Adult Male Unit per Day	Total		Quality of Diet					
			Grade A		Grade B		Grade C	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	28	100	32	100	10	100
Expenditure Range								
Highest $0.55-$0.78	21	30.0	16	57.1	5	15.6	0	0
Medium $0.43-$0.54	25	35.7	10	35.7	14	43.8	1	10.0
Lowest $0.24-$0.42	24	34.3	2	7.2	13	40.6	9	90.0

There appears to have been a close relationship between food expenditures per adult male unit per day and the quality of diet consumed. This is especially evident from the distribution of Grade A and Grade C diets. Of the A grade diets, 57 per cent were in the highest expenditure range, 35 per cent in the medium expenditure range, and seven per cent in the lowest expenditure range. In contrast 90 per cent of the Grade C diets were in the lowest expenditure range, and none were in the highest expenditure range. The relationship was also shown by the fact that the largest group of Grade B diets was in the medium expenditure range. It seems evident from the data that a close relationship existed between expenditure for food per adult male unit per day and quality of diet.

The cost per 100 calorie portion of diets varied from .68 of a cent to 1.18 cents. Approximately one-third of the diets cost one cent or more per hundred calories, one-third cost from .92 cents to .99 cents, and one-third cost .91 cents or less. The owner-renters paid more per 100 calories for their food than either of the groups. A comparison of these data with those in Table 33 shows that although the owner families were paying more per day for the food they consumed they paid less per 100 calorie portion than the owner-renter families. The renter families spent less

TABLE 37.—DISTRIBUTION OF FAMILIES AS TO 100 CALORIES PORTION COST OF DIETARIES.

Cost of 100 Calorie Portion of Food	Total		Owner		Owner-Renter		Renter	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	34	100	19	100	17	100
Cost Range								
Highest 1.0 cent-1.18 cent	22	31.4	12	35.2	8	42.1	2	11.8
Medium 0.92 ct.-0.99 ct.	25	35.7	11	34.2	5	26.3	9	52.9
Lowest 0.68 ct.-0.91 ct.	23	32.9	11	32.4	6	31.6	6	35.3

per 100 calorie portion and also less per day per adult male unit than either of the other groups of families. However, the 100 calorie portion cost of renter families was proportionately higher than their per day cost for the adult male unit in comparison with the owner and owner-renter groups.

The data given in Table 38 bear out the generally accepted idea tha there is little relationship between quality of diet and cost per 100 calorie portion.* Practically as many homemakers provided grade A diets from .92 of a cent to .99 of a cent per 100 calorie portion as provided that quality diet from 1.0 to 1.18 cents. The same situation was true for the grade B diets. Perhaps the most interesting fact is that one-fourth of the grade A diets were in the lowest cost range per 100 calorie portion, The grade C diets show a relationship between cost and quality of diet. the proportion of grade C diets increasing with the decrease in cost per 100 calorie portion. Although these data indicate that a large proportion of the poor quality diets were in the lowest cost group, they also show that cost was not the determinant of the quality of the diets as a whole.

TABLE 38.—DISTRIBUTION OF A, B, AND C QUALITY DIETS AS TO COST PER 100 CALORIE PORTION

Cost per 100 Calorie Portion of Food	Total		Quality of Diet					
			Grade A		Grade B		Grade C	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	28	40.0	32	45.7	10	14.3
Cost Range								
Highest 1.0 cent-1.18 cent	22	31.4	10	35.7	11	34.4	1	10.0
Medium 0.92 cent-0.99 cent	25	35.7	11	39.3	11	34.4	3	30.0
Lowest 0.68 cent-0.91 cent	23	32.9	7	25.0	10	31.2	6	60.0

*Rose, Mary Swartz, "Feeding the Family," page 246.

Summary of Diet of Farm Families.—The data regarding the diet of farm families were collected by the survey method. They were checked for probable degree of accuracy by comparing two estimates of the amount of money spent for food during the year, and by comparison with two similar studies, made under the direction of the United States Department of Agriculture. The diets were classified as to quality, caloric value, expenditure, and cost per 100 calorie portion. Also, the relationship between expenditure and quality and cost per 100 calorie portion and quality was determined. In determining these factors standard procedure was used in all cases where such had been established. For the other cases a procedure was developed to meet the needs of this study on the basis of the information available on the phase of data under consideration.

In general the facts regarding the diet of farm families considered in this study are as follows:

1. The calorie value of the diets varied from approximately 2000 calories to over 7000 calories per adult male unit. More than one-third of them ranged from 4000 to 4999 calories and one-fourth of them ranged from 5000 to 5999 calories per adult male unit.
2. For the diets as a group 26.6 per cent of the total calories was provided by cereals, 10.2 per cent by fruit and vegetables, 11.1 per cent by sugar and sweets, 13.4 per cent by fats and oils and 19.6 per cent by milk and cream.
3. Approximately 40 per cent of the diets of the farm families studied were grade A in quality, 45.7 per cent Grade B, and 14.3 per cent grade C.
4. The total expenditure for food varied from 24 cents to 78 cents per adult male unit per day. This expenditure was 55 cents or above for one-third of the families, from 43 to 54 cents for one-third, and less than 54 cents for the remainder of the families. There was a rather decided tendency for the quality of the diet to improve with increased expenditure for food.
5. The cost per 100 calorie portion of food ranged from .68 of a cent to 1.18 cents. In general the quality of the diet appeared to have been only slightly influenced by the cost per 100 calorie portion. There was a tendency for the poor quality diets to be in lowest cost group per hundred calorie portion.

V. OTHER FACTORS IN FARM LIVING

Clothing Expenditure for the Family.—A description and explanation of the clothing expenditures for the families is given in Table 39.

TABLE 39.—DISTRIBUTION OF FAMILIES AS TO AVERAGE FAMILY CLOTHING EXPENDITURES PER MEMBER.

Clothing Expenditure per Person	Total		Owner		Owner-Renter		Renter	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	34	100	19	100	17	100
Expenditure Range								
Highest $51-$150	21	31.4	9	26.5	8	42.1	4	23.5
Medium $35-$50	27	35.7	16	47.0	6	31.6	5	29.4
Lowest $22.50-$34.99	22	32.9	9	26.5	5	26.3	8	47.1

The data given in this table express clothing expenditures based on the average spent for each member of the 70 families studied. These figures make no attempt to show how well or appropriately various farm families are clothed or to show how wisely or economically their clothing expenditures were made.

The data show that almost one-third of the families spent more than $50 per person, slightly more than one-third spent from $35 to $50, and approximately one-third of the group spent less than $35 per member.

In a range of $35 to $60 approximately one-half of all the families would be included. Only two families spent $100 or more per person for clothing. It would appear from the table that the owner renter group spent more for clothes than either owners or renters. However, all the families that spent $75 or more per person were home owners. The 32.9 per cent who spent less than $35 per person included approximately one-half of the renters and one-fourth of each of the lowest clothing expenditures.

Housing Condition of the Farm Family.—The 70 farm homes were divided into approximate thirds, with the best one-third designated as class "A", and the poorest one-third being designated as Class "C". The division of the farm homes into these groups depended upon the size of house in proportion to size of family, upkeep of house, sanitary conditions in and surrounding the house, extent of modernization, (electric lights, running water, etc.) furnishings, beauty, and the appearance of yard and surroundings.

Using three to represent good, two to represent fair, and one to represent poor, each of the homes was rated for each factor, as shown in Table 40.

TABLE 40.—HOUSING CONDITIONS OF FARM FAMILIES

	Total Farms		Owner		Owner-renter		Renter	
	No.	%	No.	%	No.	%	No.	%
Total Farm Homes	70	100	34	100	19	100	17	100
Class								
Highest A	23	32.9	14	41.2	8	42.1	1	5.9
Medium B	24	34.2	13	38.2	6	31.6	5	29.4
Lowest C	23	32.9	7	20.6	5	26.3	11	64.7

The data indicate that the owner and owner-renter families were on approximately an equal basis regarding housing conditions. The renters as a group had much poorer housing conditions. Only one renter home was in the best group, class A, and 64 per cent of them were in class C.

All of the homes in class A were comparatively large, were painted, and in good condition. They appeared to have sanitary conditions, were attractive, fairly well furnished, and had well-kept yards and surroundings. Approximately 40 per cent of the class A homes were equipped with electric or acetylene lights, running water, or both. Among the class A homes were several beautiful colonial houses and a few of more recent style of architecture.

The class B homes usually rated high for some factors, fair for others, and low for others. Some were colonial homes which had at one time been beautiful, but were in a somewhat run down condition. Class B included many houses of average size that were in fair condition, but lacking in conveniences, beauty, etc.

The class C homes were as a whole small, unpainted, lacking in conveniences and beauty, and usually with unattractive surroundings. This group also included a few old houses that had once been spacious, beautiful and up to date, but were at the time in a badly dilapidated condition. However, the condition of most of these homes was quite good.

Length of the Working Day of Farm Homemakers.—The length of the working day as given in Table 41 represents, for the months of June, July, August, and September, the number of hours which elapsed from the time the homemaker started breakfast in the morning until she had finished the evening work. This work usually consisted of washing the supper dishes and doing certain chores. Although these data represent

TABLE 41.—DISTRIBUTION OF HOMEMAKERS AS TO LENGTH OF WORKING DAY.

Length of Working Day in Hours	Total		Owner		Owner-renter		Renter	
	No.	%	No.	%	No.	%	No.	%
Total Homemakers	70	100	34	100	19	100	17	100
Number of Hours Range								
Highest 15 to 16½	26	37.1	13	38.2	10	52.6	3	17.6
Medium 14 to 14½	24	34.3	10	29.4	7	36.9	7	41.2
Lowest 11½ to 13½	20	28.6	11	32.4	2	10.5	7	41.2

the length of the working day for only one member of the farm family, the homemaker, it is indicative of the length of day for the entire farm family.

The length of the working day for more than one-third of the homemakers was from 15 to 16½ hours, and for approximately another third it was 14 to 14½ hours. Only 28.6 per cent of the homemakers had a working day of less than 14 hours, the shortest being 11½ hours.

The owner-renter homemakers as a group had the longest working day, more than one-half of them spending from 15 to 16½ hours and only 10.5 per cent of them spending less than 14 hours. The owner homemakers were comparatively evenly distributed as to the upper, medium, and lower range, and the renter homemakers were predominantly in the medium and lower range as to the length of the working day.

Homemaking Activities.—The data in Table 42 represent the contributions of the various members of the family to the homemaking activities. The per cents represent the proportion of the 70 homes in which a given number of the families did a certain type of household task frequently or occasionally.

It is evident from the data shown in Table 42 that in the majority of the homes the homemaker did most of the homemaking work. Canning of fruit and vegetables, mending, sewing, taking care of milk, housecleaning, cooking, and taking care of the kitchen were done by the homemakers in 80 to 91.4 per cent of the families. The homemaking activities entered into most frequently by children from four to 11 years of age were washing and wiping dishes and caring for beds. In several homes they also did the churning, fed the stock, and helped with the sweeping, dusting, ironing, and milking. The older children, 12 to 18 years of age, did several of the homemaking activities in a larger number of homes than any other group of persons except the homemakers. In 20 per cent of the homes the older children cared for the kitchen, did the sweeping, wiped the dishes, and fed the stock. In 30 per cent of the

TABLE 42.—DISTRIBUTION OF HOMES AS TO MEMBERS OF FAMILY DOING HOMEMAKING ACTIVITIES

Homemaking Tasks	Homemakers		Children				Other Adults*	
			4-11 yrs.		12-18 yrs			
	Frequently %	Occasionally %	Frequently %	Occasionally %	Frequently %	Occasionally %	Frequently %	Occasionally %
Care of Kitchen	80.0	1.4	8.6	0	20.0	0	0	0
Sweeping	72.9	0	10.0	1.4	20.0	5.7	5.7	0
Dusting	72.9	0	10.0	1.4	18.6	7.1	2.9	0
Cooking	81.4	1.4	4.3	7.1	14.3	5.7	5.7	2.9
Churning	65.7	0	15.7	1.4	14.3	4.3	7.1	1.4
Washing Dishes	58.6	2.9	20.0	2.9	24.3	2.9	10.0	0
Wiping Dishes	64.3	2.9	25.7	5.7	20.0	2.9	7.1	1.4
Care of Beds	77.1	0	24.3	1.4	21.4	0	8.6	0
Mending	88.6	0	4.3	0	5.7	0	5.7	1.4
Washing	77.1	1.4	2.9	0	11.4	0	14.3	1.4
Ironing	72.9	2.9	10.0	1.4	17.1	2.9	7.1	0
Sewing	88.6	0	0	0	4.3	0	1.4	4.3
House Cleaning	82.9	0	2.9	0	7.1	0	7.1	0
Canning	91.4	0	0	0	1.4	1.4	5.7	0
Picking Fruit	55.7	11.4	8.6	4.3	8.9	5.7	35.7	8.6
Care of Garden	42.9	5.7	7.1	7.1	15.7	5.7	57.1	14.3
Care of Yard	4.3	0	0	0	1.4	0	10.0	0
Feeding Stock	8.9	4.3	14.3	0	20.0	0	95.7	0
Milking	2.9	11.4	10.0	0	30.0	0	94.3	0
Care of Milk	85.7	0	1.4	0	5.7	0	10.0	0
Care of Chickens	75.7	0	8.6	8.6	8.6	0	14.3	2.9
Miscellaneous	0	0	1.4	1.4	1.4	1.4	0	1.4

*"Other adults" include the farm operator of each family, children more than 18 years of age, and grand parents in homes which included such persons. In a large number of the homes the farm operator was the only "other adult".

This table reads: 80 per cent of the homemakers cared for the kitchen frequently, and 1.4% took care of it occasionally. Also in 8.6 per cent of the homes the children from four to eleven years of age, and in 20 per cent of the homes children from 12 to 18 years of age cared for the kitchen frequently.

homes they did the milking, in 24 per cent they washed the dishes, and in 21.4 per cent they cared for the beds. In view of the fact that only slightly more than one-third of the families had children from 12 to 18 years of age, this group appears to have made a large contribution to the homemaking activities in its respective homes.

In 95.7 per cent of the families the feeding of stock, and in 94.3 per cent of the families the milking, was done by the "other adults". In several homes they also cared for chickens and helped with the washing. Picking fruit and taking care of the garden were done in approximately one-half of the homes by the homemaker, and in almost as many by the other adults of the family.

VI. RELATIONSHIPS

The preceding sections have presented an analysis of a number of factors, such as social participation, family recreation, newspapers and magazines read by the families, education of the families, the farm business in terms of acres operated, capitalization, labor income, and money available for saving and living, quality of diet, total food expenditures, cost per 100 calorie portion, clothing cost, length of homemaker's working day, housing conditions, and homemaking activities. These factors give a picture of the farm family only in so far as one can view the family in terms of individual factors. It is the purpose of this section to consider these factors as they are related to one another.

TABLE 43.—RELATION OF SOCIAL CONTACTS TO LENGTH OF TIME IN COMMUNITY.*

Length of Time in Community	Total Families		Social Contact Range					
			Highest		Medium		Lowest	
			826—1500		526-825		150-525	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	23	33.9	23	32.9	24	34.2
Time in Community								
Always	46	65.7	18	78.3	17	73.9	11	45.8
26-54	6	8.6	2	8.7	0	0	4	16.7
11-25	6	8.6	1	4.3	1	4.3	4	16.7
1-10	6	8.6	1	4.3	3	13.0	2	8.3
Not Noted	6	8.6	1	4.3	2	8.7	3	12.5
Owner								
Total Families	34	100	8	23.5	11	32.4	15	44.1
Time in Community								
Always	20	58.8	6	75.0	8	72.7	6.	40.0
26-54	5	14.7	2	25.0	0	0	3	20.0
11-25	3	8.8	0	0	0	0	3	20.0
1-10	3	8.8	0	0	2	18.2	1	6.7
Not Noted	3	8.8	0	0	1	9.1	2	13.3
Owner-Renter								
Total Families	19	100	7	36.8	8	42.1	4	21.1
Time in Community								
Always	15	78.9	6	85.7	7	87.5	2	50.0
26-54	1	5.3	0	0	0	0	1	25.0
11-25	2	10.5	0	0	1	12.5	1	25.0
1-10	1	5.3	1	14.3	0	0	0	0
Not Noted	0	0	0	0	0	0	0	0
Renter								
Total Families	17	100	8	47.1	4	23.5	5	29.4
Time in Community								
Always	11	64.7	6	75.0	2	50.0	3	60.0
26-54	0	0	0	0	0	0	0	0
11-25	1	5.9	1	12.5	0	0	0	0
1-10	2	11.8	0	0	1	25.0	1	20.0
Not Noted	3	17.6	1	12.5	1	25.0	1	20.0

*For the method of reading this table, and others similar to it in this section, see footnote to Table 11.

It was difficult to determine the relationship between social contacts and length of time in the community because of the fact that more than 65 per cent of the families had always lived in the community. However, in this large group who had always lived in the community were 78 per cent of the families in the upper social contact range, 73 per cent of

those in medium range, and only 45 per cent of the families in the lower social contact range. A similar tendency with slight variations existed among the owner, owner-renter, and renter groups. Those who had always lived in the community seemed to have a large number of social contacts. Almost as large a proportion had a medium number of social contacts, and a somewhat lower proportion were found in the lower range of contacts.

TABLE 44.—RELATION OF SOCIAL CONTACTS TO AGE OF OPERATOR

Social Contacts	Total Families		Age of Operator					
			23-41		42-51		52-75	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	22	31.4	24	34.3	24	34.3
Social Contact Range								
Highest 826-1500	23	32.9	9	40.9	7	29.2	7	29.2
Medium 526-825	23	32.9	9	40.9	8	33.3	6	25.0
Lowest 150-525	24	34.2	4	18.2	9	37.5	11	45.8
Owner								
Total Families	34	100	5	14.7	11	32.4	18	52.9
Social Contact Range								
Highest 826-1500	8	23.5	1	20.0	3	27.2	4	22.2
Medium 526-825	11	32.4	3	60.0	4	36.4	4	22.2
Lowest 150-525	15	44.1	1	20.0	4	36.4	10	55.6
Owner-Renter								
Total Families	19	100	10	52.6	7	36.8	2	10.2
Social Contact Range								
Highest 826-1500	7	36.8	4	40.0	3	42.8	0	0
Medium 526-825	8	42.1	5	50.0	2	28.6	1	50.0
Lowest 150-525	4	21.1	1	10.0	2	28.6	1	50.0
Renter								
Total Families	17	100	7	41.2	6	35.3	4	23.5
Social Contact Range								
Highest 826-1500	8	47.1	4	57.1	1	16.7	3	75.0
Medium 526-825	4	23.5	1	14.3	2	33.3	1	25.0
Lowest 150-525	5	29.4	2	28.6	3	50.0	0	0

There was a definite and consistent tendency for the number of social contacts to decrease as the age of operators increased. This was quite marked for the group as a whole, and with a few exceptions was true for each of the groups of families. The main exceptions were the large proportion of owner and owner-renter operators in the youngest age group who had a medium number of social contacts, and the greater proportion of the oldest age group of renters in the higher, rather than the lower, range of social contacts.

Approximately 41 per cent of the families whose operators ranged from 23 to 41 years of age had a family average of from 826 to 1500 social contacts for the year, while only 29 per cent of the operators from 52 to 75 years of age, had social contact averages within this range. Although approximately 41 per cent of the operators in the youngest age group were in the highest range of social contacts, there was an equal number of the operators 23 to 41 years of age in the medium social contact range. However, in the lowest range of social contacts (150-525) there were only 18 per cent of the youngest group of operators, with 39

per cent of the operators in the medium age group (42-51 years), and almost 46 per cent of those in the oldest age group (52 to 75 years). With the exception of the variations already mentioned, the same tendency for the group as a whole, for the number of social contacts to increase as the age of the operator decreased, was true for the owner, owner-renter, and renter groups.

TABLE 45.—RELATION OF FAMILY RECREATION TO FARM CAPITALIZATION.

Family Recreation	Total Families		Farm Capitalization Range					
			Highest		Medium		Lowest	
			$8501 and above		$5001 to $8500		$5000 and below	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	23	32.9	23	32.9	24	34.2
Participation Range								
Highest 1310-2910	24	34.2	10	43.5	5	21.7	9	37.5
Medium 516-1309	25	35.7	6	26.1	10	43.5	9	37.5
Lowest 0-515	21	30.0	7	30.4	8	34.8	6	25.0
Owner								
Total Families	34	100	17	50.0	14	41.2	3	8.8
Participation Range								
Highest 1310-2910	10	29.4	7	41.2	2	14.3	1	33.3
Medium 516-1309	10	29.4	4	23.5	5	35.7	1	33.3
Lowest 0-515	14	41.2	6	35.3	7	50.0	1	33.3
Owner-Renter								
Total Families	19	100	6	31.6	9	47.4	4	21.0
Participation Range								
Highest 1310-2910	7	36.9	3	50.0	3	33.3	1	25.0
Medium 516-1309	10	52.6	2	33.3	5	55.6	3	75.0
Lowest 0-515	2	10.5	1	16.7	1	11.1	0	0
Renter								
Total Families	17	100	0	0	0	0	17	100
Participation Range								
Highest 1310-2910	7	41.2	0	0	0	0	7	41.2
Medium 516-1309	5	29.4	0	0	0	0	5	29.4
Lowest 0-515	5	29.4	0	0	0	0	5	29.4

Family recreation as related to the capitalization of the farm is shown by Table 45. For all the farm families the table shows that those in the highest range of capitalization were also in the highest range of social participation. There were 43.5 per cent of the families in the highest range of capitalization who were in the highest range for social participation. Of the families in the medium range of capitalization, 43.5 per cent were in the medium range of family recreation, and 34.8 per cent of the families in the lowest range. That part of the table including all groups of farm operators thus indicated that the greatest proportion of the families in the highest range of capitalization was also in the highest range of family recreation, and that the greatest proportion of those families in the medium range of capitalization was in the medium range of family recreation. The same trend holds true for the lower range.

In the owner families the distribution in the highest range of capitalization with respect to the ranges of family recreation was very similar to that just indicated for all the families. A slightly different situation existed regarding the medium range of capitalization, one-half

of the families being in the lowest range of family recreation. Only a slight difference was noted as to the recreational distribution of families in the lowest range of capitalization. The tendency in the case of the owner-renter families was for those in the highest range of farm capitalization to be also in the highest range of family recreation, for those in the medium range of capitalization to be in the medium range of family recreation, and for those in the lowest range of capitalization to be in the medium range of family recreation. Very little was indicated regarding the relation of family recreation to capitalization in the case of the renter families, since no renters were in the upper and medium range of capitalization. However, of those renter families in the lower range of capitalization, 41.2 per cent were in the upper range of family recreation.

While it cannot be said that a large farm capitalization was definitely associated with a large family recreation, and a small capitalization with less family recreation, yet there is some evidence to show this, especially in the upper range of capitalization.

TABLE 46.—RELATION OF FAMILY RECREATION TO MONEY AVAILABLE FOR SAVING AND LIVING.

Family Recreation	Money Available for Saving and Living							
	Total Families		Highest		Medium		Lowest	
			601 and above		251 to 600		250 and below	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	23	32.9	23	32.9	24	34.2
Participation Range								
Highest 1310-2910	24	34.3	11	47.8	4	17.4	9	37.5
Medium 516-1309	25	35.7	6	26.1	13	56.5	6	25.0
Lowest 0-515	21	30.0	6	26.1	6	26.1	9	37.5
Owner								
Total Families	34	100	11	32.4	11	32.4	12	35.2
Participation Range								
Highest 1310-2910	10	29.4	5	45.5	2	18.2	3	25.0
Medium 516-1309	10	29.4	1	9.0	5	45.5	4	33.3
Lowest 0-515	14	41.2	5	45.5	4	36.6	5	41.7
Owner-Renter								
Total Families	19	100	8	42.1	7	36.8	4	21.1
Participation Range								
Highest 1310-2910	7	36.9	3	37.5	1	14.3	3	75.0
Medium 516-1309	10	52.6	4	50.0	6	85.7	0	0
Lowest 0-515	2	10.5	1	12.5	0	0	1	25.0
Renter								
Total Families	17	100	4	23.5	5	29.4	8	47.1
Participation Range								
Highest 1310-2910	7	41.2	3	75.0	1	20.0	3	37.5
Medium 516-1309	5	29.4	1	25.0	2	40.0	2	25.0
Lowest 0-515	5	29.4	0	0	2	40.0	3	37.5

An analysis of the 70 families shows that those in the highest range of money available for saving and living were also in the highest range of family recreation; and those families in the medium range of money available for saving and living were in the medium range of family recreation. In the lowest range of money available for saving and living, 37.5 per cent of the families were in the highest range, and the same number in the lowest range of family recreation. This was not in line with the

tendency for the families in the highest and medium range of money available for saving and living to be in the same range of family recreation.

That part of the table showing the distribution of owner families indicated a tendency for those families in the lowest range of money available for saving and living to be in the lowest range of family recreation, since 41.7 per cent of the families in the lowest range of money available for saving and living were in the same range of family recreation. Also there were 45.4 per cent of the families in the medium range of money available for saving and living who were in the medium range of family recreation. However, the fact that an equal number of the families in the highest range of money available for saving and living in the lowest range of family recreation was contrary to this tendency.

Nearly an opposite situation was indicated in the case of the owner-renter families. There were 75 per cent of the families in the lowest range of money available for saving and living who were in the highest range of family recreation, and 85.7 per cent of those families in the medium range of the money available for saving and living who were in the medium range of family recreation. In the upper range of the money available for saving and living one-half of the families were in the medium range of family recreation, and 37.5 per cent in the highest range of family recreation. Thus the tendency among the owner-renter families was for those in the lowest range of money available for saving and living to be in the highest range of family recreation.

TABLE 47.—RELATION OF SOCIAL CONTACTS TO MONEY AVAILABLE FOR SAVING AND LIVING.

Social Contacts	Total Families		Money Available for Saving and Living: Highest $601 and above		Medium $251 to $600		Lowest $250 and below	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	23	32.9	23	32.9	24	34.2
Social Contact Range								
Highest 826-1500	23	32.9	10	43.5	5	21.8	8	33.3
Medium 526-825	23	32.9	5	21.8	9	39.1	9	37.5
Lowest 150-525	24	34.2	8	34.7	9	39.1	7	29.2
Owner								
Total Families	34	100	11	32.4	11	32.4	12	35.2
Social Contact Range								
Highest 826-1500	8	23.5	4	36.4	1	9.1	3	25.0
Medium 526-825	11	32.4	2	18.2	3	27.3	6	50.0
Lowest 150-525	15	44.1	5	45.4	7	63.6	3	25.0
Owner-Renter								
Total Families	19	100	8	42.1	7	36.8	4	21.1
Social Contact Range								
Highest 826-1500	7	36.8	4	50.0	2	28.6	1	25.0
Medium 526-825	8	42.1	2	25.0	4	57.1	2	50.0
Lowest 150-525	4	21.1	2	25.0	1	14.3	1	25.0
Renter								
Total Families	17	100	4	23.5	5	29.4	8	47.1
Social Contact Range								
Highest 826-1500	8	47.1	2	50.0	2	40.0	4	50.0
Medium 526-825	4	23.5	1	25.0	2	40.0	1	12.5
Lowest 150-525	5	29.4	1	25.0	1	20.0	3	37.5

In the case of the renter families the tendency appears to have been for those in the highest range of money available for saving and living to be in the highest range of family recreation, since 75 per cent of the families of the highest range of money available for saving and living were also in the highest range for the other factor. The tendency for the families in the lower range of money available for saving and living also to be in the lower range of family recreation was not so marked since there was an equal number, 37.5 per cent of the families, of the lowest range of money available in the upper and lower ranges of family recreation.

For the families as a whole the conclusion is that in the case of the highest and medium ranges of money available for saving and living the greater the amount of money, the greater extent of family recreation. However, for the lowest range this tendency did not exist in all groups.

The relation of social contacts to the money available for saving and living is shown in Table 47.

No clear relationship is shown between social contacts and money available for saving and living. The only indication of such a relationship was that the 43.5 per cent of all the families in the highest range of money available for saving and living were also in the highest range of social contacts. However, there were 34.7 per cent of the families in the highest range of money available for saving and living who were in the lowest range of social contacts. In the lowest range of money available for saving and living 33.3 per cent of all the families were in the highest range, 37.5 per cent in the medium, and 29.2 per cent in the lowest range of social contacts. Thus there appeared to be little evidence of dependence of social contacts upon the money available for saving and living when all families were considered.

In the case of the owner families there was some suggestion that the families with the largest amounts of money available for saving and living were in the lowest range of social contacts, since 45.4 per cent of the owner families in the highest range of money available for saving and living were in the lowest range of social contacts, and 63.6 per cent of those in the medium range of money available for saving and living were in the lowest range of social contacts. However, in the case of the lowest range of money available one-half of the families were in the medium range of social contacts. It was further indicated that those families in the medium range of money available for saving and living showed the least tendency to be in the upper range of social contacts.

There was a more pronounced tendency for the owner-renter families in the highest range of money available for saving and living to be in the highest range of social contacts. That is, one-half of the families in the highest range of this type of income were in the highest

range of social contacts. This same situation existed in the case of the renter families. Moreover, 57.1 per cent of the owner-renter families in the medium range of money available for saving and living were in the medium range of social contacts, and 28.6 per cent were in the highest range of social contacts. The proportion with respect to the medium income range in the case of the renter families was lower in the medium range of social contacts, but greater in the highest range. There were one-half of the families in the lowest range of money available for saving and living in the medium range of social contacts. Thus the tendency among the owner-renter families appears to have been for those in the highest range of money available for saving and living to be in the highest range of social contacts, for those in the medium range to be in the medium range of social contacts, and those in the lowest income range to be also in the medium range of social contacts. Such a condition was not so evident in the case of the renter families, for one-half of the families in the highest and lowest range of money available for saving and living, and 40 per cent of the families in the medium range of money available for saving and living, were in the highest range of social contacts. Hence it indicated that the renter families had social contacts irrespective of the amount of money available for saving and living.

In general it may be concluded that for those farm families studied the extent of social contacts did not depend to any large degree upon the amount of money available for saving and living.

TABLE 48.—RELATION OF AMOUNT OF MONEY AVAILABLE FOR SAVING AND LIVING AND THE NUMBER OF NEWSPAPERS AND MAGAZINES READ BY FARM FAMILIES.

Newspapers and Magazines Read	Money Available for Saving and Living							
	Total Families		Highest $601 and above		Medium $251 to $600		Lowest $250 and below	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	23	32.9	23	32.9	24	34.2
Number Read								
Highest 9-14	18	25.8	8	34.8	5	21.7	5	20.8
Medium 6-8	26	37.1	10	43.5	10	43.5	6	25.0
Lowest 1-5	26	37.1	5	21.7	8	34.8	13	54.2
Owner								
Total Families	34	100	11	32.3	11	32.3	12	35.4
Number Read								
Highest 9-14	6	17.7	2	18.2	1	9.0	3	25.0
Medium 6-8	15	44.1	6	54.5	5	45.5	4	33.3
Lowest 1-5	13	38.2	3	27.3	5	45.5	5	41.7
Owner-Renter								
Total Families	19	100	8	42.1	7	36.8	4	21.1
Number Read								
Highest 9-14	6	31.6	4	50.0	2	28.6	0	0
Medium 6-8	8	42.1	3	37.5	4	57.1	1	25.0
Lowest 1-5	5	26.3	1	12.5	1	14.3	3	75.0
Renter								
Total Families	17	100	4	23.5	5	29.4	8	47.1
Number Read								
Highest 9-14	6	35.2	2	50.0	2	40.0	2	25.0
Medium 6-8	3	17.6	1	25.0	1	20.0	1	12.5
Lowest 1-5	8	47.1	1	25.0	2	40.0	5	62.5

The data on Table 48 show that as amount of money available for saving and living increased the number of newspapers and magazines read also increased. The largest number of persons reading from nine to 14 papers and magazines was in the highest income group. There were an equal number of the families reading from six to eight papers and magazines in the highest and in the medium income groups; and the largest number of families in the lowest income group, 54 per cent, also read the smallest number of papers and magazines. The same relationship existed in the renter group.

There appears to have been a fairly close relation between money available for saving and living, and the number of newspapers and magazines read, and, with a few exceptions, the relationship existed for each of the groups.

TABLE 49.—RELATION OF MONEY AVAILABLE FOR SAVING AND LIVING TO QUALITY OF DIET.

Money Available for Saving and Living	Total Families		Quality of Diet Range					
			Highest		Medium		Lowest	
			A		B		L	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	28	40.0	32	45.7	10	14.3
Money Available Range								
Highest $601—above	23	32.9	11	39.3	9	28.1	3	30.0
Medium $251 to $600	23	32.9	10	35.7	10	31.3	3	30.0
Lowest $250—below	24	34.2	7	25.0	13	40.6	4	40.0
Owner								
Total Families	34	100	15	44.1	14	41.2	5	14.7
Money Available Range								
Highest $601—above	11	32.4	7	46.7	3	21 4	1	20.0
Medium $251 to $600	11	32.4	2	13.3	7	50.0	2	40.0
Lowest $250—below	12	35.2	6	40.0	4	28.6	2	40.0
Owner-Renter								
Total Families	19	100	8	42.1	9	47.3	2	10.6
Money Available Range								
Highest $601—above	8	42.1	2	25.0	5	55.6	1	50.0
Medium $251 to $600	7	35.8	6	75.0	1	11.1	0	0
Lowest $250—below	4	21.1	0	0	3	33.3	1	50.0
Renter								
Total Families	17	100	5	29.4	9	52.9	3	17.6
Money Available Range								
Money $601—above	4	23.5	2	40.0	1	11.1	1	33.3
Medium $251 to $600	5	29.4	2	40.0	2	22.2	1	33.3
Lowest $250—below	8	47.1	1	20.0	6	66.7	1	33.3

There was evidence in the group as a whole, and in the owner families, for large amounts of money available for saving and living and high quality diet to be found together, and for medium amounts of money and medium quality (grade B) diets to be found together. However, the tendency was only slight in these groups, and did not exist among the owner-renter and renter groups.

Most of the owner-renter families with the largest amount of money available for saving and living consumed grade B diets, and those in the medium income range consumed grade A diets. The largest group of

renter families were in the lowest range of money available for saving and living, and consumed grade B diets.

The relationship between quality of diet and money available for saving and living was not consistent throughout the various groups. However, there was some evidence among the group as a whole and among the owner families, for large amounts of money available for saving and living and high quality diet to be found together.

TABLE 50.—RELATION OF EDUCATIONAL INDEX AND MONEY AVAILABLE FOR SAVING AND LIVING.

Educational Index	Money Available for Saving and Living							
	Total Families		Highest		Medium		Lowest	
			$601 and above		$251 to $600		$250 and below	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	23	32.9	23	32.9	24	34.2
Index Range								
Highest 3-4.7	25	35.7	11	47.8	8	34.8	6	25.0
Medium 2-2.9	21	30.0	8	34.8	6	26.1	7	29.2
Lowest 1-1.9	24	34.3	4	17.4	9	39.1	11	45.8
Owner								
Total Families	34	100	11	32.4	11	32.4	12	35.2
Index Range								
Highest 3-4.7	16	47.1	6	54.5	4	36.4	6	50.0
Medium 2-2.9	8	23.5	3	27.3	1	9.1	4	33.3
Lowest 1-1.9	10	29.4	2	18.2	6	54.5	2	16.7
Owner-Renter								
Total Families	19	100	8	42.1	7	36.8	4	21.1
Index Range								
Highest 3-4.7	6	31.6	3	37.5	3	42.8	0	0
Medium 2-2.9	7	36.8	4	50.0	2	28.6	1	25.0
Lowest 1-1.9	6	31.6	1	12.5	2	28.6	3	75.0
Renter								
Total Families	17	100	4	23.5	5	29.4	8	47.1
Index Range								
Highest 3-4.7	3	17.6	2	50.0	1	20.0	0	0
Medium 2-2.9	6	35.3	1	25.0	3	60.0	2	25.0
Lowest 1-1.9	8	47.1	1	25.0	1	20.0	6	75.0

The data in Table 50 show clearly a high relationship between the amount of money available for saving and living and the educational index of the family. Almost one-half of all the families with more than $600 available for saving and living were in the highest range of educational indexes, and an equal number of the families with less than $251 available were in the lowest range of educational indexes. The families with a medium amount of money, $251 to $600, available for saving and living were rather evenly distributed among the three ranges of educational indexes, with the smallest proportion of them in the medium range.

With one exception for each group, the same tendencies existed for the owner, owner-renter, and renter families. The exception for the owners was that the largest group of families with the least amount of money available for saving and living was in the upper rather than the lower range of educational indexes. Among the owner-renter families the exception was that the medium range for educational indexes included slightly more of the families with more than $600 available than did the

upper range of educational indexes. Also, the largest group of renters, with from $251 to $600 available, were in the medium range of educational indexes.

The tendency for those families with the largest amounts of money available for saving and living to have the greatest amount of education was quite pronounced throughout the entire group of rural families included in this study. Since the educational index represented both adults and children the relationship is especially significant.

TABLE 51.—THE RELATION OF EDUCATIONAL INDEX AND SOCIAL CONTACTS.

Educational Index	Social Contact Range							
	Total Families		Highest 826–1500		Medium 526-825		Lowest 150-526	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	22	31.4	24	34.3	24	34.3
Index Range								
Highest 3-4.7	25	35.7	9	40.9	6	25.0	10	41.7
Medium 2-2.9	21	30.0	7	31.8	9	37.5	5	20.8
Lowest 1-1.9	24	34.3	6	27.3	9	37.5	9	37.5
Owner								
Total Families	34	100	8	23.5	11	32.4	15	44.1
Index Range								
Highest 3-4.7	16	47.1	5	62.5	4	36.4	7	46.7
Medium 2-2.9	8	23.5	1	12.5	4	36.4	3	20.0
Lowest 1-1.9	10	29.4	2	25.0	3	27.2	5	33.3
Owner-Renter								
Total Families	19	100	7	36.8	8	42.1	4	21.1
Index Range								
Highest 3-4.7	6	31.6	2	28.6	1	12.5	3	75.0
Medium 2-2.9	7	36.8	4	57.1	3	37.5	0	0
Lowest 1-1.9	6	31.6	1	14.3	4	50.0	1	25.0
Renter								
Total Families	17	100	7	41.2	5	29.4	5	29.4
Index Range								
Highest 3-4.7	3	17.6	2	28.6	1	20.0	0	0
Medium 2-2.9	6	35.3	2	28.6	2	40.0	2	40.0
Lowest 1-1.9	8	47.1	3	42.8	2	40.0	3	60.0

There was no very close relationship between the educational indexes of families and the family averages for social contacts. There was, however, a tendency for those with the largest number of social contacts, 826 to 1500, and those with the smallest number of social contacts, 150 to 225, to be in the highest range of educational indexes. This was true for the group as a whole and for the owner and owner-renter groups. It did not hold true for the renter group, probably because of the fact that a very small proportion of the total renter group came within the upper range of educational indexes.

There was a tendency for those with the most education to be in the extreme groups for social contacts, either with very many or very few contacts. Further than that, the data suggested no relationship between social contacts and educational index.

There was little or no relationship between amount of money available for saving and living and the average per person clothing expenditure for the various families. The largest group of families in the high-

TABLE 52.—RELATION OF CLOTHING EXPENDITURE TO MONEY AVAILABLE FOR SAVING AND LIVING.

Clothing Expenditure	Money Available for Saving and Living							
	Total Families		Highest		Medium		Lowest	
			$601 and above		$251 to $600		$251 and below	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	21	30.0	25	35.7	24	34.3
Clothing Expenditure Range.								
Highest $51.25-$150	21	30.0	8	38.1	6	24.0	7	29.2
Medium $35-$50	27	38.6	9	42.9	10	40.0	8	33.3
Lowest $22.50-$34.17	22	31.4	4	19.0	9	36.0	9	37.5
Owner								
Total Families	34	100	9	26.5	13	38.2	12	35.3
Clothing Expenditure Range								
Highest $51.25-$150	9	26.5	2	22.2	3	23.1	4	33.3
Medium $35-$50	16	47.0	5	55.6	7	53.8	4	33.3
Lwest $22.50-$34.17	9	26.5	2	22.2	3	23.1	4	33.3
Owner-Renter								
Total Families	19	100	8	42.1	7	36.8	4	21.1
Clothing Expenditure Range								
Highest $51.25-$150	8	42.1	4	50.0	2	28.6	2	50.0
Medium $35-$50	6	31.6	3	37.5	2	28.6	1	25.0
Lowest $22.50-$34.17	5	26.3	1	12.5	3	42.8	1	25.0
Renter								
Total Families	17	100	4	23.5	5	29.4	8	47.1
Clothing Expenditure Range								
Highest $51.25-$150	4	23.5	2	50.0	1	20.0	1	12.5
Medium $35-$50	5	29.4	1	25.0	1	20.0	3	37.5
Lowest $22.50-$34.17	8	47.1	1	25.0	3	60.0	4	50.0

est income range, 38 per cent, had the highest average clothing expenditure, $50 to $150, and the largest group of families in the lowest income group, 37.5 per cent, also had the lowest average clothing expenditures. However, both groups were not very large, and were the result of variations in the owner, owner-renter, and renter groups, rather than the result of any general trend.

Among the owners the families in the highest and medium income groups spent from $35 to $50 per person for clothes. The families in the lowest income group were equally divided as to the three groups of clothing expenditures. Among the owner-renter families those having the largest and the smallest amount of income available for saving and living spent from $50 to $150 per person for clothes, and those in the medium income group, having from $251 to $600 available for saving and living, spent less than $35 per person for clothing.

Among the renter families the largest group of families, 50 per cent, in the highest range of money available for saving and living, were also in the highest range of clothing expenditures, and the proportion of the families with less than $250 available for saving and living increased with each decrease in clothing expenditure.

TABLE 53.—RELATION OF LENGTH OF WORKING DAY TO MONEY AVAILABLE FOR SAVING AND LIVING.

Length of Working Day	Total Families		Money Available for Saving and Living: Highest 601 and above		Medium 251 to 600		Lowest 250 and below	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	23	32.9	23	32.9	24	34.2
Number of Hours Range								
Highest 15-16 1-2	26	37.2	6	26.1	12	52.2	8	33.3
Medium 14-14 1-2	24	34.2	7	30.4	6	26.1	11	45.8
Lowest 11 1-2 to 13 1-2	20	28.6	10	43.5	5	21.7	5	20.9
Owner								
Total Families	34	100	11	32.4	11	32.4	12	35.2
Number of Hours Range								
Highest 15-16 1-2	13	38.2	2	18.2	5	45.4	6	50.0
Medium 14-14 1-2	10	29.4	5	45.4	2	18.2	3	25.0
Lowest 11 1-2 to 13 1-2	11	32.4	4	36.4	4	36.4	3	25.0
Owner-Renter								
Total Families	19	100	8	42.1	7	36.8	4	21.1
Number of Hours Range								
Highest 15-16 1-2	10	52.7	4	50.0	4	57.1	2	50.0
Medium 14-14 1-2	7	36.8	2	25.0	3	42.9	2	50.0
Lowest 11 1-2 to 13 1-2	2	10.5	2	25.0	0	0	0	0
Renter								
Total Families	17	100	4	23.5	5	29.4	8	47.1
Number of Hours Range								
Highest 15-16 1-2	3	17.6	0	0	3	60.0	0	0
Medium 14-14 1-2	7	41.2	0	0	1	20.0	6	75.0
Lowest 11 1-2 to 13 1-2	7	41.2	4	100	1	20.0	2	25.0

The data in Table 53 show that for the group as a whole the homemakers of the families with the most money available for saving and living had the shortest working day (11½ to 13½ hours), those in the medium range for money available had the longest working day (15 to 16½ hours), and those with the smallest amount of money available for saving and living are in the medium range for length of working day (14 to 14½ hours).

Among the largest group of owner families with the most money available, the homemakers' day was 14 to 14½ hours; for the owners in the medium income range the work day for the largest group was 15 to 16½ hours; and one-half of the owner families with the smallest amount of money available for saving and living had the longest working day.

The homemakers in the owner-renter families, in the highest range of money available for saving and living, had the longest working day; for those in both the medium and the lowest income group there was an equal division as to the longest and medium length working day. No homemakers of a renter family in the highest range for money available for saving and living put in more than the minimum working day, while 60 per cent of those in the medium income range had the maximum working day (15 to 16½ hours), and 75 per cent of those in the lowest income range were in the medium range for length of working day.

TABLE 54.—RELATION OF LENGTH OF WORKING DAY TO SOCIAL CONTACTS

Length of working Day	Total Families		Quality of Diet					
			Highest		Medium		Lowest	
			A		B		C	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	100	24	34.2	23	32.9	23	32.9
Number of Hours Range								
Highest 15 to 16 1-2	26	37.2	8	33.3	9	39.1	9	39.1
Medium 14 to 14 1-2	34	34.2	7	29.2	10	43.5	7	30.4
Lowest 11 1-2 to 13 1-2	20	28.6	9	37.5	4	17.4	7	30.4
Owner								
Total Families	34	100	9	26.5	11	32.3	14	41.2
Number of Hours Range								
Highest 15 to 16 1-2	13	38.3	4	44.4	3	27.3	6	42.9
Medium 14 to 14 1-2	10	29.4	2	22.2	5	45.4	3	21.4
Lowest 11 1-2 to 13 1-2	11	32.3	3	33.3	3	29.3	5	35.7
Owner-Renter								
Total Families	19	100	7	36.6	8	42.1	4	21.1
Number of Hours Range								
Highest 15 to 16 1-2	10	52.7	3	42.8	5	62.5	2	50.0
Medium 14 to 14 1-2	7	36.8	2	28.6	3	37.5	2	50.0
Lowest 11 1-2 to 13 1-2	2	10.5	2	28.6	0	0	0	0
Renter								
Total Families	17	100	8	47.1	4	23.5	5	29.4
Number of Hours Range								
Highest 15 to 16 1-2	3	17.6	1	12.5	1	25.0	1	20.0
Medium 14 to 14 1-2	7	41.2	3	37.5	3	50.0	2	40.0
Lowest 11 1-2 to 13 1-2	7	41.2	4	50.0	1	25.0	2	40.0

Although there were variations in each group of families, a consideration of the total families shows that the homemakers of the families with the most money available for saving and living had the shortest working day.

A tendency for the homemakers of the families with the highest per person average for social contacts to have the shortest working day, for those in the medium range for social contacts to have a medium length working day, and for those in the lowest range for social contacts to have the longest working day was indicated for the group as a whole, and, with the exception of the group with the smallest number of social contacts, was true also for the renter families. Among the owner families the tendency was for those with the most and with the least social contacts to put in the longest working day, and for those with a medium number of social contacts to have a medium length working day. More than half of the owner-renter families were in the highest range for length of working day. Nevertheless, the tendency for shorter working hours and larger number of social contacts to represent the same families was evident, although not as marked as for total families as a group.

Summary

1. There was a tendency for a large proportion of those who had always lived in the community to have a large number of social contacts.

2. For the families as a whole, the number of social contacts decreased with an increase in the age of farm operators.

3. There was some tendency for large farm capitalization to be associated with large family recreation, especially in the upper range of capitalization.

4. In the upper and medium ranges of money available for saving and living, the greater the amount of money, the greater was the extent of family recreation.

5. There was slight relationship between social contacts and amount of money available for saving and living.

6. A rather pronounced relationship appeared between the amount of money available for saving and living and the number of newspapers and magazines read.

7. High quality diets were generally found in homes where there was a large amount of money available for saving and living.

8. There was a pronounced tendency for those families with the largest amounts of money available for saving and living to have the most education.

9. Little relationship existed between the amount of education and the number of social contacts.

10. No definite relationship existed between clothing expenses and amount of money available for saving and living.

11. The homemakers with the greatest amount of money available for saving and living had the shortest working day, those with a medium amount of money available had the longest working day, and those with the smallest amount of money available for saving and living had a medium length working day.

12. The homemakers of the families with the highest per person average for social contacts had the shortest working day, and vice versa.

VII. RATING OF THE FARM FAMILIES ACCORDING TO THE CONTRIBUTION OF A GROUP OF FACTORS OF FARM LIVING

This section deals with the individual and combined contribution of 11 factors of farm living to each family and to the 70 families as a group. Only factors that are complete for all members of the family are included, and with the exception of one factor only those that can be divided into approximate thirds are considered. The factors included are: social contacts, family recreation, number of newspapers and magazines read, educational index, capital invested, money available for saving and living, labor income, quality of diet, food expenditure, clothing expenditure, and the farm home or housing conditions of the family. "A" represents the upper third for each item (except quality of diet,) "B" the medium third, and "C" the lower third for each of the items. Grade "A", "B", and "C" diets are based on the agreement with and variation from the standard by which each dietary was judged, and represent 40 per cent grade A, highest quality, 45.7 per cent grade B, medium quality, and 14.3 per cent grade C, poor quality, diets. Although the families could not be divided into three approximately equal groups for diet, this factor was included because it appeared to have been an important factor in family living. Items such as receipts and expenditures were included in the determination of other economic factors considered, and therefore were not used as separate items. These data for each family are given in Table 55.

The data given in Table 55 represent the total rating points for each family and the contribution of each of the 11 factors to the total rating.

By using 3 to represent a rating of "A" for each factor, 2 to represent "B" for each factor, and 1 to represent "C" for each factor, it was found that the families varied from 13 to 30 as a total rating. No family received the highest possible rating (33) which would have represented a rating of "A" for each factor. However, there were 20 families that had a rating of 25 to 30, and eight additional families with a rating of 24, which shows that a number of the families were in the highest third for a large proportion of the 11 factors. Some families were in the lowest third for a large proportion of the factors, 7 families having a rating of 13 to 16, less than half of the possible score. Another group of families varied as to ratings for the different factors, some of them having almost equal proportionsof A, B, and C rating.

TABLE 55.—DISTRIBUTION OF INDIVIDUAL FAMILIES AS TO ELEVEN DIFFERENT FACTORS IN FAMILY LIVING AND AS TO TOTAL RATING FOR THESE FACTORS.†

Case No.	Social Contacts	Family Recreation	Newspapers and Magazines Read	Educational Index	Capital Invested	Money Available for Saving and Living	Labor Income	Quality of Diet	Food Expenditures	Clothing conditions tures	Housing Conditions	Total Rating	Family rating for 13 Factors
													Owner Families
1	A	B	B	A	B	C	C	A	A	B	A	25	A
2	B	C	A	A	B	C	C	A	A	B	B	23	B
3	C	B	B	C	A	C	C	B	B	A	A	22	B
4	B	B	C	A	C	C	C	C	C	C	C	13	C
5	B	B	B	B	A	C	C	A	A	A	A	26	A
6	B	A	B	B	B	C	C	A	A	A	C	23	B
7	B	B	A	B	A	C	C	B	B	B	A	24	A
8	C	C	C	B	A	C	C	A	A	B	A	22	B
9	A	A	C	C	A	C	C	B	A	C	C	17	C
10	C	C	C	A	B	C	B	C	A	C	A	19	C
11	B	C	C	B	C	B	C	B	C	B	C	14	C
12	C	A	B	C	B	B	B	B	C	B	B	19	C
13	B	C	C	C	B	B	B	B	C	B	B	18	C
14	B	B	C	C	B	B	C	C	C	B	B	18	C
15	B	A	B	A	A	B	C	B	B	B	A	23	B
16	B	B	C	A	A	B	C	B	B	A	B	21	B
17	C	B	B	A	A	B	B	B	A	C	A	23	B
18	C	C	C	C	A	B	C	B	B	B	B	19	C
19	C	B	A	C	B	B	B	A	A	B	C	23	B
20	C	C	B	B	B	B	A	A	B	B	B	26	A
21	A	A	B	A	A	B	B	A	B	C	C	21	B
22	C	C	B	A	B	B	B	B	C	C	B	16	C
23	C	C	C	C	A	A	B	C	B	C	A	25	A
24	C	C	B	A	A	A	C	A	A	C	A	24	A
25	A	A	B	A	A	C	C	A	A	B	A	25	A
26	A	A	A	A	B	A	A	C	C	B	B	22	B
27	C	C	A	C	B	A	A	A	A	B	B	25	A
28	C	A	C	B	A	A	C	A	A	B	C	21	B
29	A	C	A	C	A	A	A	A	C	B	B	29	A
30	B	A	B	B	A	A	A	B	A	B	A	24	A
31	C	A	A	A	A	A	B	A	C	A	A	30	A
32	A	C	C	B	A	A	B	B	C	A	A	24	A
33	A	B	B	A	A	A	A	A	B	A	B	27	A
34	B	A	B	A	C	A	A	A	B	A	B	27	A

| | | |

Dividing the 70 families into three as nearly equal groups as possible in view of duplications in total ratings for some families, the distribution as shown in Table 56 resulted.

TABLE 56.—DISTRIBUTION OF FAMILIES AS TO SUPERIOR RATING, AVERAGE RATING, AND BELOW-AVERAGE RATING, FOR THE 11 FACTORS SHOWN IN TABLE 55.

Rating Groups	Total families		Owner		Owner-renter		Renter	
	No.	%	No.	%	No.	%	No.	%
Total Families	70	10	34	100	19	100	17	100
Rating Range								
Superior (24-30)	28	40.0	14	41.2	11	58.0	3	17.6
Average (21-23)	23	32.8	11	32.4	5	26.3	7	41.2
Below Average (13-20)	19	27.2	9	26.4	3	15.9	7	41.2

The division of the 70 families as to total rating for the 11 factors shown in Table 55 gave a superior rating to 40 per cent of the families, an average rating to 32.8 per cent of the families, and a below average rating to 27.2 per cent of the families. The data show that the owner-renter group had a larger proportion of families, 58 per cent, with a superior rating, and the smallest proportion of families, 15.9 per cent, with a less than average rating than either of the other family groups. The owner families had a somewhat lower proportion, 41.2 per cent, of families with a superior rating and a higher proportion, 26.4 per cent, of families with a below-average rating for the 11 factors. The distribution of the renter families was unfavorable in comparison with the owner and owner-renter groups. Seventeen and six-tenths per cent of the renter families had a superior rating, 41.2 per cent had an average rating, and 41.2 per cent had a rating of below-average for the 11 factors as a whole.

The proportion of the total rating points provided by each of the 11 factors to the superior, average, and below-average rating groups is shown in Table 57.

The data in Table 57 show the number of rating points provided by each of the 11 factors of farm living considered, and the per cent of total rating points provided by each factor for the Superior, Average and Below-Average groups of families.

Among the 28 "Superior Rating" families as a group, the total rating points (719) were almost equally distributed among the 11 factors contributing them. The greatest proportion of the total rating points provided by only one factor was 9.8 per cent while the smallest was 8.3 per cent, a variation of only 1.5 per cent. Among the "Average Rating" group there was a variation of 2.4 per cent, and in the Below-Average Rating group a variation of 3.1 per cent between the largest and smallest proportion of the total rating points provided by any one factor.

TABLE 57.—CONTRIBUTION OF EACH OF THE ELEVEN FACTORS TO THE TOTAL RATINGS FOR EACH GROUP.

Rating Groups	Total		Numerical Rating According to Points Received. For Social Contacts		For Family Recreation		For Newspapers and Magazines Read		For Educational Index		For Capital Invested		For Money Available For Saving and Living		For Labor Income		For Quality of Diet		For Food Expenditures		For Clothing Expenditures		Housing Conditions	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Superior Rating Group—28 Fam.																								
Total	719	100	61	8.4	65	9.0	68	9.4	67	9.3	68	9.4	69	9.5	60	8.3	71	9.8	60	8.3	63	8.7	67	9.3
Owner	356	100	25	7.0	31	8.7	30	8.4	35	9.8	38	10.6	33	9.0	28	7.8	38	10.6	32	8.9	32	8.9	34	9.2
Owner-Renter	290	100	28	9.6	26	8.9	30	10.3	24	8.2	27	9.3	28	9.6	23	7.8	25	8.6	23	7.8	26	8.9	30	10.3
Renter	73	100	8	10.9	8	10.9	8	10.9	8	10.9	3	4.1	8	10.9	9	12.3	8	10.9	5	6.8	5	6.8	3	4.1
Average Rating Group—23 Fam.																								
Total	501	100	43	8.5	44	8.7	41	8.1	48	9.5	42	8.4	43	8.5	45	8.9	53	10.5	49	9.6	50	10.0	43	8.5
Owner	241	100	18	7.4	18	7.4	19	7.8	27	11.2	27	11.2	20	8.3	16	6.6	24	9.9	24	9.9	24	9.9	24	9.9
Owner-Renter	109	100	9	8.2	11	10.2	8	7.3	9	8.2	8	7.3	10	9.1	12	11.0	13	11.9	12	11.0	10	9.1	7	6.4
Renter	151	100	16	10.5	15	9.9	14	9.2	12	7.9	7	4.6	13	8.6	17	11.2	16	10.5	13	8.6	16	10.5	12	7.9
Below Average Group—19 Fam.																								
Total	320	100	32	10.0	35	10.9	26	8.1	26	8.1	29	9.0	27	8.4	33	10.3	32	10.0	27	8.4	25	7.8	28	8.7
Owner	154	100	15	9.6	16	10.4	12	7.8	12	7.8	17	11.0	14	9.0	13	8.5	14	9.0	14	9.0	12	7.8	15	9.6
Owner-Renter	52	100	4	7.6	6	11.5	4	7.6	5	9.8	5	9.8	4	7.6	5	9.8	6	11.5	4	7.6	5	9.8	4	7.6
Renter	114	100	13	11.4	13	11.4	10	8.7	9	7.8	7	6.1	9	7.8	15	13.1	12	10.5	9	7.8	8	7.0	9	7.8

25.6=Average number of rating points per family for the 28 Superior Rating Families.

21.7=Average number of rating points per family for the 23 Average Rating Families.

16.8=Average number of rating points per family for the 19 Below-Average Rating Families.

65=Average number of rating points per factor for the 11 factors contributing to the Superior Rating Group.

45=Average number of rating points per factor for the 11 factors contributing to the Average Rating Groups.

29=Average number of rating points per factor for the 11 factors contributing to the Below-Average Rating Group.

In other words there was a tendency for the families of the superior group to be consistent or to receive an almost equal number of rating points from each of the 11 factors. This indicated that the superior families were in the highest one-third for almost all of the factors. The somewhat greater variation in the contribution of the 11 factors in the "Average Rating" group showed that these families were in the highest third for a few factors and in the lowest third for a few factors, but that in general they were in the medium third for most factors. The wider range of variation among the contributions made by the various factors to the "Below-Average Rating" group showed that although this group was in the lowest third for many factors they were in the highest third for a few factors.

A comparison of the proportional contribution of the various factors to the owner, owner-renter and renter families within each rating group shows a tendency similar to that existing between the three rating groups.

That is: I. The owner families tended:
1. To vary slightly as to the contribution made by the different factors.
2. To have a high capital investment.
3. To have a low labor income.

II. The owner-renter families tended:
1. To vary more than the owner families as to contributions made by the different factors.
2. To have a slightly higher contribution from two factors, family recreation and labor income, and slightly lower contributions from capital invested, than was true for the owner families.

III. The renter families tended:
1. To vary considerably more than the other groups in the contributions made by different factors.
2. To have a large contribution from:
   a. Social contacts.
   b. Labor income.
   c. Newspapers and magazines.
3. To have small contributions from:
   a. Capital invested.

VIII. SUMMARY AND CONCLUSIONS

It has been the aim of this study to give a rather comprehensive view of the living conditions of the farm families in a Missouri Community, to show the relationship among the various factors of farm life, and to demonstrate a method for the study of the farm family. Table 58 is a graphic summary of the 26 factors concerning the 70 farm families studied. The width of the table represents 100 per cent, or the total 70 families. The proportion of the entire width of the table included within a given rectangle, represents the proportion of total families for which the information within that rectangle holds true.

TABLE 58.—A SUMMARY OF 26 FACTORS CONCERNING 70 FARM FAMILIES OF THE COMMUNITY

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Farm Owner					Owner-Renter			Farm Renter		
Operators Who Had Always Farmed									1-57 Years	
Operators Who Had Always Lived in Community						1-10 Yrs.		11-25 Yrs.	26-54Yrs.	
Operators Who Liked Farm Life								Indif. to farm life	Disliked farm life	
Homemakers Who Liked Everything About Farm Life					Homemakers Who Liked Most Things About Farm Life				Disliked farm life	
2 Persons in Family					3-4 Persons in Family			5-8 Persons in Family		
23-41 Years-Age of Operators					42-51 Years-Age of Operators			52-75 Years-Age of Operators		
23-36 Years-Age of Homemakers					37-49 Yr.-Age of Homemakers			50-77 Yrs. -Age of Homemakers		
150-525-Social Contacts Per Person					526-825-Social Con. Per Person			.826-1500-Soc. Con. per Person.		
0-515-Family Recreation Per Person.					516-1309-Fam. Rec. per Person			1310-2910-Family rec per pers'n		
1-5-Newspapers and Magazines read					6-8-Newspapers and Mag. read			9-14-Newspapers and Mag. read		
1-1.7-Educational Index					2-2.6-Educational Index			3.1-4.7-Educational Index		
100 and Below-Acres Farmed.					101-160 Acres Farmed.			160 and Above-Acres Farmed.		
$5000 and Below-Capital Invested					$5001-$8500-Capital Invested			$8501 and Above-Capital Inv'd		
$150 and Below-Labor Income.					$149-$200-Labor Income			$201 and Above-Labor Income.		
$250 and Below-Money Available for Saving and Living					$251-$600-Money Available for Saving and Living			$601 and Above-Money Available for Saving and Living.		
$22.50-$34.99-Clothing Cost per per.					$35-$50-Clothing Cost per per.			$50-$150-Clothing Cost per Per		
11¼-13½ Hours-Length of Working Day					14-14½ Hours-Length of Working Day			15-16½ Hours-Length of Working Day		
4-6 Hours-Time Spent on Household Duties					6½-7½ Hours-Time Spent on Household Duties			8-11½ Hours-Time Spent on Household Duties		
2½-6½ Hours-Hours Available for Occasional Tasks and Leisure					7-7½ Hours-Hours Available for Occasional Tasks and Leisure			8-10½ Hours-Hours Available for Occasional Tasks and L		
Good Housing					Fair Housing			Poor Housing		
$0.24-$0.42-Food Expenditure Adult Male Unit Per Day					$0.43-$0.54-Food Expenditure Adult Male Unit Per Day			$0.55-$0.78-Food Expenditure Adult Male Unit per Day.		
.68 of a Cent-.91 of a Cent-Per 100-Calorie Portion of Food					.92 of a Cent.-.99 of a Cent-Per 100-Calorie Portion of Food			1.0-1.18 Cent-Per 100 Calorie Portion of Food		
2000-3999 Calorie Diets-per Adult Male Unit per Day					4000-5999 Calorie Diets-Per Adult Male Unit Per Day				6000-6999 Calorie Diets Per Adult Male Unit per Day	
A Grade Diet					B Grade Diet				C Grade Diet	
Superior Rating Families (24-30)					Average Rating Families (21-23)				Below Average Families (13-20)	
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

The relatedness of one factor to another is shown in Table 59.

TABLE 59.—SUMMARY OF RELATEDNESS OF FACTORS IN FARM LIVING.

Definitely Related	Slightly Related	Unrelated
Time in Community and Social Contacts	Size of Family and Social Contacts	Size of Family and Money Available
Age of Operator and Social Contacts	Capitalization and Family Recreation	Age of Operator and Money Available
Size of Family and Family Recreation	Age of Operator and Quality of Diet	Age of Operator and Labor Income
Money Available and Family Recreation	Labor Income and Quality of Diet	Size of Income and Labor Income
Money Available and Papers and Magazines	Money Available and Social Contacts	Clothing Expenditure and Money Available
Money Available and Quality of Diet		Food Expenditure and Clothing Expenditure
Money Available and Education		Size of Family and Quality of Diet
Acres Operated and Capitalization		Social Contacts and Clothing Expenditure
Acres Operated and Age of Operator		Social Contacts and Quality of Diet
Capitalization and Labor Income		Social Contacts and Education
Capitalization and Money Available		Social Contacts and Papers and Magazines

Those factors which showed a definite relation to or dependence upon one another were associated as follows:

1. The greater the length of time in the community, the more numerous the social contacts.
2. With an increase in the age of the farm operator was associated a decrease in social contacts.
3. The larger the families, the greater the amount of family recreation.
4. The greater the amount of money available for saving and living, the greater was the extent of family recreation.
5. With the larger amounts of money available for saving and living, a larger number of newspapers and magazines were read.
6. The larger the amount of money available for saving and living, the better was the quality of the diet.
7. The larger the amount of money available for saving and living, the better the education of the family.
8. Operators having a large acreage had a large capitalization.
9. The larger farms were operated by the younger operators.
10. In general those having a large capitalization had a small labor income.
11. Those operators having a large capitalization had a large amount of money available for saving and living.

There were several factors which showed only a slight relation to or dependence upon one another. These instances were:

1. The larger the families, the greater the number of social contacts.
2. The larger the capitalization, the greater the family recreation.

3. The larger the amount of money available for saving and living, the greater the number of social contacts.
4. Families of the older group of operators consumed high quality diets.
5. The larger the labor income, the higher the quality of diet consumed.

There were several factors which showed no relationship or dependence upon one another. These were as follows:

1. Size of family and money available for saving and living.
2. Age of operator and money available for saving and living.
3. Age of operator and labor income.
4. Size of family and labor income.
5. Clothing expenditures and money available for saving and living.
6. Social contacts and clothing expenditures.
7. Food expenditures and clothing expenditures.
8. Size of family and quality of diet.
9. Social contacts and quality of diet.
10. Social contacts and education.
11. Social contacts and newspapers and magazines read.

TABLE 60.—SUMMARY OF THE FACTORS CONTRIBUTING MORE OR LESS THAN THE AVERAGE* TO THE FAMILIES IN THE THREE RATING GROUPS.

Rating Groups		
Superior	Average	Below-Average
More than Average Contribution		
Education Housing Conditions Capitalization Money Available for Saving and Living Newspapers and Magazines Diet	Clothing Expenditure Food Expenditure Diet Education	Social Contacts Family Recreation Labor Income Diet
Less Than Average Contribution		
Clothing Expenditure Social Contacts Labor Income Food Expenditure	Housing Conditions Capitalization Social Contacts Family Recreation Newspapers and Magazines Money Available for Saving and Living	Education Housing Conditions Clothing Expenditure Food Expenditure Money Available for Saving and Living Papers and Magazines

*The average was secured by dividing the total number of rating points provided by each factor for all the families in a given rating group, by the number of factors.

When a comparison is made of the contributions of the various factors to farm family living, as shown in Summary Table 60, one observes there was a tendency for certain factors to occur together. Also, that the group of factors occurring together was different for the superior, the average, and the below-average rating groups. However, there is nothing to indicate that any one factor was a determinant of the others. It may be of some significance that the factors contributing more than the average number of points to the superior group were education,

housing conditions, capitalization, money available for saving and living, newspapers and magazines, and diet. The last factor made large contributions to each of the three groups, so it could hardly have been a determining factor.* Whether any one or all of the other factors or some combination of factors formed a determinant, cannot be ascertained at this time. It seems clear that there is no single determinant for the superior standard of farm life, but that all factors contribute to the standard and that the improvement in any one factor and especially any group of factors, tends to improve the others. The latter assumption suggested itself throughout the whole study, and was especially evident in Tables 55 and 57. Table 55 showed a tendency for some families to have a high rating in nearly all factors, and for some to have a low rating in nearly all factors. Table 57 showed that although there was a tendency for the factors to vary as to the contribution made to the superior, average and below-average rating groups, the variations were very small.

The procedure which consisted of recording many phases of farm living by the survey method, of analyzing each type of data as to the highest, medium, and lowest one-third of the families for each factor, and of relating the various factors and groups of factors to each other, represents one form of synthetic approach in the study of the farm family.

*The larger contribution of rating points was due to the fact that the diets were divided into groups on a basis of established standards, while all other factors were divided into highest, medium, and lowest thirds for that factor.

APPENDIX

Schedules Used in Securing Data for this Study

STANDARD OF LIVING SCHEDULE
UNIVERSITY OF MISSOURI
AGRICULTURAL EXPERIMENT STATION
DEPARTMENT OF RURAL SOCIOLOGY
with the Departments of Agricultural Economics and Home Economics cooperating

Farm No._____ RECORD OF YEAR'S BUSINESS ON A FARM.

County_____ State_____ Record for year beginning and ending_____

Operator_____ P. O._____ R. D._____ Station_____ Distance and direction of farm from station_____ Acres owned by operator_____ Acres cash rented_____ Acres share rented_____ TOTAL ACRES Farmed_____

Years farming_____ Years on present farm_____ How long in community_____

Previous occupation_____

CROP	CROPS GROWN		CROPS SOLD OR TO BE SOLD			CROPS
Acres Corn	Yield per A.	Total Crop	Amount	Price	Total Value	Fed, Am't.
Corn						
Wheat						
Oats						
Other grains						
Hay Legumes						
Other						
TOTAL						

TOTAL_____
Acres of crops_____

TOTAL_____
Crop Sales_____

Pasture rotation	
Woods not pastured	
Woods Pastured	
her permanent pasture	
Waste	
TOTAL ACRES	

Miscellaneous Receipts

Received for	Amount	Value
Labor off farm		
Cash rent for land		
Lumber, wood		
Rent of buildings		
Net income from other enterprises		

Total Miscellaneous receipts_____

Farm No._____ LIVESTOCK Name of Operator._____

KIND	Beginning of year			End of year			Sales			Purchases			No. died during year	No. eaten during year on farm
	No.	Value per head	Total Value	No.	Value per head	Total Value	No.	Price per head	Total Rec'd	No.	Price per head	Total paid		
Cows														
Calves														
Other cattle														
Work animals														
Colts														
Brood sows														
Pigs weaned														
Other hogs														

Chickens															
Bees															
Other livestock															

Livestock Products

Product	Amount	Price	Total Value	Amount used in home
Milk				
Cream				
Butter				
Wool				
Eggs				

Farm No.----------

Name of Operator----------

Farm Expenses for year

Month help Mo.	
Day help Da.	
Machine hire, baling, threshing, etc.	
Breeding Fees	
Buildings-new	
Buildings repairs	
Cash rent for pasture	
Hay, silage, etc.	
Fence	
Feeds, grains, etc.	
Fertilizer	
Insurance	
Machinery-new	
Machinery-repairs	
Coal, gasoline, oil	
Seeds	
Telephone	
Taxes	

Special equipment

Auto----------
Truck----------
Tractor---------
Manure spreader----------

CAPITAL

	Value at the beginning of the year	Value at the end of the year
Farm		
Machinery, wagons, harness		
Livestock		
TOTALS		

SUMMARY

Average capital		
RECEIPTS		
Increase of capital		
Crops		
Livestock sold		
Livestock Products		
Miscellaneous		
TOTAL RECEIPTS		
EXPENSES		
Decrease of capital		
Livestock purchased		
Farm expenses		
TOTAL EXPENSES		
Income from capital and operator's labor		
Interest on average capital at 5%		
LABOR INCOME		

Farm No._____ Name of Operator_____

APPEARANCE OF FARMSTEAD

	Above Average	Average	Below Average	Special Comments
House Outside				
Inside				
Barns				
Yard				
Arrgt. of farmstead.				
Care of machinery				
Sanitation				

USE OF AGENCIES FOR FARM IMPROVEMENT

Use Ag. Bul.	Obs. Mkt. Report	Exc. Lbr. with Nbr.	Use advice from Ag. College	Use advice from Co. Agent	Use Advice from papers	No. times to town	Att'd. F. & H. Week

How many changes have been made in farming as a result of the above agencies?_____

TRIPS TAKEN DURING PAST TWO YEARS

Who went	Where	Dist. to	Time Spent	Cost	Purpose	Means of travel

USE OF MAIL ORDER BUSINESS

Frequently_____

Occasionally_____

Never_____

TRADE WHERE General_____

Furn. & Equip._____

Clothing_____

Doctor_____

Bank_____

Farm No._____ Name of Operator_____

PARTICIPATION OF MEMBERS OF THE FAMILY IN COMMUNITY ACTIVITIES

Activity	Husband			Wife			Children																		Roads			Dis. to	Amt. Exp.
	Member	Hr. Yr. Spent	Officer	Member	Hr. Yr. Spent	Officer	Member	Hr. Yr. Spent	Officer	Member	Hr. Yr. Spent	Officer	Member	Hr. Yr. Spent	Officer	Member	Hr. Yr. Spent	Officer	Member	Hr. Yr. Spent	Officer	Member	Hr. Yr. Spent	Officer	U D.	I D	A W		
Church																													
5 yr. ago																													
S. Schcol																													
5 yrs. ago																													
Ladies' Aid																													
5 yrs. ago																													
P. T. A.																													
5 yrs. ago.																													
School Meeting																													
5 yrs. agc.																													
Com. Club.																													
5 yrs. ago.																													
Lodge																													
5 yrs. ago.																													

| H. Tal. Ent. | | |

Farm No.---------- Name of Operator----------

ATTITUDES

Attitude toward	Fund.	Modern	Opposed	Somewhat Opposed	Resentful	Suspicious	Indifferent	Pitying	Highly Appreciative	Liberal	Cooperative	No Viewpoint
H. S. Ed.												
Col. Ed.												
Co. Agt. Work												
Play & Rec. for Y. P.												
Com. Org.												
Town												
Coop. Mkg.												
Bus. Man												
Taxation												
Science												
Religion												
Com. Studies												

Attitude toward farming: Like very much; Indifferent; Dislike; Dislike very much.

What things about farming do you like most?---------- ----------

What things about farming do you dislike most?---------- ----------

What do you think are the greatest needs of your community?---------- ----------

Farm No._____ Name of Operator_____

V-all
A-adult
Y-young people & children
M-more
L-less
D-distance U. D.
R-roads I D A W

Description of Family

	adult		children		
	Name	age	rel.	name	age	rel.
1						
2						
3						
4						
5						
6						

FAMILY RECREATION

Activity	In family Now No.	In family Now V A Y	In family 5 Y	With F, R, N Now No.	With F, R, N Now V A Y	With F, R, N 5 Y
Radio						
Phonogr.aph						
Play M. L.						
Singing						
Cause-Change						
Chess						
Checkers						
Dominoes						
Cards						
Croquet						
Horse shoe						
Dance						
Cause-Change						
Sleighing						
Fishing						
Hunting						
Boating						
Skating						
Ball pl.						
Cause-Change						
Visiting table						
T. Stories						
M. Candy						
Pop corn						
Cause-Change						

Activity	In family Now No.	In family Now V A Y	In family 5 Y	With F, R, N Now No.	With F, R, N Now V A Y	With F, R, N 5 Y	D D	R R
Shows								
Circus								
B. game								
Ft. game								
B. B. game								
Sch. ent.								
Track meet								
Dance								
Cause-Change								
Birthday C.								
Christmas C								
July 4 C.								
Cause-Change								
Wed-Char.								
School D.								
Church sup.								
Church Party								
Other Party								
Dinners Frn.								
Visits								
Revival								
Fid. Contest								
Revival								
Pol. gather.								
Picnics								
Cause-Change								

SOCIAL CONTACTS-YOUNG PEOPLE

home	church	school	commercial	
				now
				5 Yrs

OUTSIDE COMMUNITY

what	where	dist. to	freq.

Total Expen. for:

Recreational purposes	
Educational purposes	
Religious purposes	
Fraternal purposes	
Other organizations	
TOTAL	

Farm No._____ Operator_____

PAPERS, MAGAZINES, BOOKS, READ BY FAMILY

Name		Cost.	Man	Wife	Children					
Bugle										
Missourian										
Tribune										
St. L. Gl. Dm.										
Jefferson										
K. C. Star										
Farm & F. S.										
Country G.										
Dairy Farm										
Cappers W.										
Mo. Ruralist										
Farm Life										
Suc. Farming										
Better H. G.										
Lit. Digest										
Sat. E. Post										
Leag. W. Vot.										
Lad. H. Jour.										
McCalls										
Religious										
S. S. papers										
Girls Week										
Total										

DAILY SCHEDULE WIFE

4:00-4-30	
4:30-5:00	
5:00-5:30	
5:30-6:00	
6:00-6:30	
6:30-7:00	
7:00-7:30	
7:30-8:00	
8:00-8:30	
8:30-9:00	
9:00-9:30	
9:30-10:00	
10:00-10:30	
10:30-11:00	
11:00-11:30	
11:30-12:00	
12:00-12:30	
12:30-1:00	
1:00-1:30	
1:30-2:00	
2:00-2:30	
2:30-3:00	
3:00-3:30	
3:30-4:00	
4:00-4:30	
4:30-5:00	
5:00-5:30	
5:30-6:00	
6:00-6:30	
6:30-7:00	
7:00-7:30	
7:30-8:00	
8:00-8:30	
8:30-9:00	
9:00-9:30	
9:30-10:00	
10:00-10:30	
10:30-11:00	
11:00-	

EDUCATION OF FAMILY

	Highest Schooling	Special Training						Cost last year
		Music	Commercial	Elocution	Mechanical	Short Course	Other	
Man								
Wife								
Children								

Farm No._____ Operator_____

WORK OR HOMEMAKING ACTIVITIES OF FAMILY

Activities	Man F	Man O	Wife F	Wife O	Children and Y. people F	O	F	O	F	O	F	O	F	O	F	O
C. kitch																
Sweep																
Dust.																
Cook																
Churn																
W. Dish.																
Wipe D.																
C. Beds																
Mend																
Wash																
Iron																
Sew																
House C.																
Canning																
Pk. fruit																
C. Gard.																
C. yard																
F. Stock																
Milking																
C. milk																
C. chick																

Things enjoyed most about farm life.

Things disliked most about farm life.

Homemaking problems

Time per week wife goes to town.

Play of preschool child

Indoor	F	O

Outdoor

Play of G. Sch. child

Indoor	F	O

Outdoor

CLOTHING EXPENDITURE FOR PAST YEAR

Article	Man	Wife	Children & Y. people					
(age)								
Hats								
Suits								
Coats								
Dresses								
Blouses								
Aprons								
Skirts								
Underwear								
Gowns								
Kimonos								
Handker.								
Stockings								
Shoes								
Rubbers								
Gloves								
Total								

Grand total_____

Play Equipment_____

Farm No._____ Operator_____

Food expenditure for past year

Item	Amount	Cost
Meats		
pork		
beef		
lamb		
poultry		
fish		
Cheese		
Oysters		
Bread		
Cereals		
O. grains		
Sugar		
Molasses		
Syrup		
Honey		
Vegetables		
fresh		
canned		
dried		
Fruits		
fresh		
canned		
dried		
Butter		
Fats		
Crackers		
Potatoes		
Coffee		
Tea		
Chocolate		
Preserves		
Pickles		
Total		

Consumption of food produced on farm

Item	Amount	Value
Meats		
pork		
beef		
lamb		
poultry		
Eggs		
Milk		
Cream		
Vegetables		
fresh		
canned		
dried		
Fruits		
fresh		
canned		
dried		
Butter		
Fats		
Cheese		
Potatoes		
Preserves		
Pickles		
Total Val.		
Total Exp.		
Grand total		

No. meals served past year

	No. per.	meals	total
Harvesters			
Threshers			
Hay men			
Silo fillers			
Steady help			
Other help			
Visitors			
Family			
Total Meals			

Av. Grocery bill per mo.

Winter	
Summer	
Total for 12 Mo. Est.	

Farm No._____ Operator_____

HEALTH OF FAMILY

	Head-ache		Colds		Tooth-ache		Other Minor Ailments	Major Illness	Exam L. Yr.		General H.		
	F.	O.	F.	O.	F.	O.			Ph.	Dt.	G.	F.	P.
Husband													
Wife													
Children													

HEALTH EXPENDITURES

	Doctor	Dentist	Hospital	Medicine	House Help	Farm Help	Nurse	First Aid	Misc.
Husband									
Wife									
Children									
Total									

Grand Total_____

OPERATING EXPENSE

Item	Cost
Household help	
Ice	
Lye, Soap, Cleaning p'wd'r	
Starch, Bluing	
Matches, Paper	
Total	

REPAIR AND UPKEEP

	Cost
Wall paper	
Indoor Paint	
Varnish	
Total	

HOUSEHOLD CONVENIENCES

Name	Kind	Cost. LY
Wash		
Iron		
Churn		
Separ't.		
Sweeper		
Lights		
Stove		
Heat		
Water-R.		
Refrigerator		
Fireless Cooker		
Pressure Cooker		
Bath Tb.		
Ind. Tlt.		

Farm No._____ Operator_____

HOUSEHOLD FINANCE

Kind of Househ'd Accounts	Plan for Spending	Source of funds and what each covers				
		Allowance	Poultry & Eggs	Fruit & Veg.	Milk, Butter, Cream	Other

HOW CHILDREN SECURE MONEY

Name	Age	Paid for Working			Share in					Allowanc	Gifts	Other
		In H'e	Outside	What	Poul'y	Eggs	Veg.	Stock	Crops			

A-all WHAT CHILDREN DO WITH THEIR MONEY Part-P

Name	Age	Clothes	School Supplies	Amusement	Savings Investment	Other